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22 February 1984

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

FBIS FOREIGN BROADCAST INFORMATION SERVICE

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EAST EUROPE

LATIN AMERICA

NEAR EAST/SOUTH ASIA

ERICSSON SELLS PHONE EXCHANGES TO MOROCCO, AUSTRALIA, TUNISIA

Stockholm DAGENS NYHETER in Swedish 21 Jan 84 p 10

[Text] Ericsson has received three large orders for telephone equipment amounting to a total of 675 million kronor. The largest order is from Australia, which is expanding its network of digital AXE [expansion unknown] stations. The Australian telecommunications administration, Telecom, has ordered equipment from Ericsson totaling 520 million kronor.

A certain portion of the order is to be manufactured in Sweden, but Ericsson's affiliate in Melbourne will be the principal manufacturer.

Ericsson has also achieved what is regarded as a breakthrough in Morocco.

In competition with ITT, French CIT-Alcatel and several other suppliers, Ericsson received an AXE order worth 150 million kronor.

Ericsson is to supply and install 20 telephone stations in such places as Rabat, Casablanca, Marrakech and Agadir.

All the equipment is to be produced in Sweden, and the system will be placed in operation during 1985 and 1986.

Ericsson also received an order in Tunisia, the first country in Africa to construct a network for mobile telephones.

The Tunisian telecommunications administration has ordered an AXE mobile-telephone exchange, an 8-channel base station and 100 mobile units for a total of 5 million kronor.

Tunisia intends to expand the system to at least 2,000 mobile units by the end of 1985.

9992
CSO: 5500/2585

TELECOM BARES $400 MILLION PLAN TO SERVICE OUTBACK

Brisbane THE COURIER MAIL in English 12 Jan 84 p 10

[Text] CANBERRA.— Telecom yesterday outlined its plans for communications services in outback Australia, including a new scheme for businesses in remote areas to use the domestic satellite.

The newly-developed digital radio concentrator system is expected to be introduced by the middle of this year to provide STD, ISD and videotex services to remote areas.

Telecom is to use leased transponder space on the domestic satellite system for voice, telex and data services aimed mainly at the business market.

The Telecom managing director, Mr Bill Pollock, said yesterday the satellite would provide communications which should be attractive to remote mineral and oil exploration ventures, pastoral companies and others.

He said, during a visit to Broken Hill, that linking isolated towns, settlements and outback stations with centres of population would remain a Telecom priority.

To bring outback Australia into the automatic telecommunications network would cost up to $400 million.

Mr Pollock said the digital radio concentrator system would be used to provide STD, ISD and videotex and would also offer telex and data facilities.

It would provide cheaper phone links than a satellite service.

Mr Pollock said the average cost of connecting a customer to the network using the system would be about $20,000 but only the standard rural connection fees would apply to new customers.

They ranged from $150 to $1350 depending on the distance from a telephone exchange.

The Telecom spokesman said the satellite service would have 65 earth stations which would provide channels for voice, telex or data services.

These would allow companies operating in remote areas to be linked with offices in capital cities or to receive information.

Transportable devices would allow immediate communications on remote exploration sites and in the event of a disaster.

The data services would provide links such as computer-to-computer communications for businesses in country areas.

CSO: 5500/4360

BRIEFS

DEFENSE COMMUNICATIONS NETWORK--A contract has been awarded for the first stage of a new multimillion dollar communications network for the Defense Department. The network, known as Discon which is planned for completion by 1990, is designed to give Australia's force new secure communications for command and control. The initial contract worth $44 million [Australian dollars] has been awarded to the Plessey Pacific Systems Proprietary Limited. [Text] [Melbourne Overseas Service in English 0130 GMT 26 Jan 84 BK]

CSO: 5500/4361

BRIEFS

COMPUTER EXPORTS--The surge in Hongkong-made personal computers and microcomputer component exports is seen in rejuggled third quarter trade figures for last year released by the Census and Statistics Department yesterday. Classifying by industry rather than commodity shows domestic exports of electrical machinery and appliances including electronic products to $6,709 million between January and September last year. This is $2,429 million--or 57 per cent more--than in the corresponding 1982 period and makes things electrical and electronic the second most important group of exports after clothing. Normally, electrical goods are one category under the familiar six-digit United Nations Standard International Trade Classification (SITC) system. Electronic items are found in various sections including telecommunications and "office machines and automatic data processing equipment." [Excerpt] [Hong Kong SOUTH CHINA MORNING POST in English 4 Jan 84 Business News p 1]

CSO: 5500/7511

KPNLF TO EXTEND BROADCAST RANGE

Bangkok THE NATION REVIEW in English 18 Jan 84 p 3

[Text]

THE Khmer People's National Liberation Front (KPNLF) yesterday appealed to overseas Kampuchean technicians to join the movement to work on the extension of the broadcast range of a clandestine and mobile radio station which is a joint venture of the other non-communist Khmer resistance faction and will begin broadcasting a "full, official programme" on Jan 24.

KPNLF spokesman Penn Thai told *The Nation* that although the broadcast range had increased, it had yet to be extended.

A ranking KPNLF official also said that the KPNLF was now working on the extension of the broadcast range with a view to realizing a goal to have the programmes monitored as deep as about 200 kms from the Thai-Kampuchean frontier within this year.

Describing the radio transmission as a powerful tool against the Vietnamese occupation of Kampuchea, the KPNLF officials said that the mobility of the radio station affected the transmission range.

"The range would have been longer if it were a permanent radio station but for security reasons, we have to move the station once in a while to avoid a Vietnamese attack. If the broadcast is made from a mountainous site, it would be more clearly audible than from a lower site," he said.

The KPNLF official also raised the possibility that relay stations might be set up inside Kampuchea to increase the power of the mobile radio station.

According to the KPNLF officials, the radio station was actually set up in 1982 as a tool of the KPNLF and it was just recently that we joined hands with the FUNCINPEC resistance movement headed by Prince Norodom Sihanouk. They said that the station started broadcasting programmes as a joint venture on Jan 7.

Meanwhile, a spokesman of the FUNCINPEC movement told AP that the radio station will begin broadcasting a full, official radio programme on Jan 24.

Sihanouk spokesman Lah Tol said the medium wave broadcasts began on a provincial basis last Sunday, carrying only a short daily programme of news and music.

He said broadcasts can be heard in resistance zones along the frontier and some areas of western Kampuchea controlled by pro-Hanoi Heng Samrin government. The spokesman said the range of the broadcasts was between 250 and 350 kms – far less than the powerful clandestine radio of the Khmer Rouge which has been operating out of southern China since Vietnamese forces toppled their regime in early 1979.

CSO: 5500/4365

BRIEFS

NEW CGDK RADIO STATION--Bangkok, 24 Jan (AFP)--The two non-communist factions of the Canbodian resistance coalition today announced the official launching of an anti-Vietnamese radio station broadcasting inside Cambodia. Prince Norodom Sihanouk's personal representative in Bangkok, his son Prince Ranariddh, said in a statement that the radio aimed to "unite all Khmers for the liberation of Cambodia." The Voice of Khmer is operated jointly by Prince Sihanouk's followers and those of his nationalist partner Son Sann, head of the Khmer People's National Liberation Front (KPNLF). The radio has been operating since 15 January, broadcasting programs described as "experimental." It will also "assist the nationalist Khmer resistance fighters" and "preserve our heritage," the statement said, detailing the schedules and frequencies of the three daily broadcasts. The station has two mobile transmitters along the Thai-Cambodian border and can beam as far as Kompong Chhnang, near Phnom Penh, Prince Ranariddh said earlier. The Khmer Rouge, the third partner in the coalition, already operates a radio station, believed broadcast from southern China. [Excerpts] [BK241131 Hong Kong AFP in English 0937 GMT 24 Jan 84]

CSO: 5500/4365

USSR-BUILT RADIO, TV STATIONS BOOSTED

Bangkok THE NATION REVIEW in English 11 Jan 84 pp 1, 2

[Article in "Dateline Vientiane" series by Sampong Kittinaradorn]

[Text] Vientiane--Laos has launched the transmission of its first national television station while stepping up Soviet-built broadcasting facilities to increase domestic and overseas radio transmission power by three times up to 150 kilowatts, a senior Lao official has reported.

The national television station officially went into operation on 1 December 1983 while the powerful radio broadcast transmission station will be launched in the middle of this year.

In an exclusive interview with THE NATION here last week, Boun Mek Phengsavanh, deputy chief of the National Radio and Television Organization of Laos, said the new transmission station, featuring a 280-metre-tall pole, is located off Highway 13, about 50 kms north of the Lao capital.

He said the national television station was set up in response to what he called "the need for our own television programmes."

He added that the television programme, during its two-year trial run, was "quite popular" among the people.

The Lao television programmes, broadcast every Wednesday and Saturday night for two hours, could be received by Segam system television sets which make up the majority of about 20,000 sets in the country, according to the senior official.

Soviet television programmes have also been beamed to the Lao television sets, through the Pal system, via a Soviet-built satellite station, about 50 kms north of Vientiane, every night.

The Soviet programmes, Boun Mek said, were aimed primarily at the Lao intellectuals who speak and understand the Russian language. The exact number of Soviet-educated people in Laos is not known but Boun Mek said about 10,000 Lao students are studying in the Soviet Union at the moment.

He said although the majority of TV sets in Laos use the Segam system--and not the Pal system--the audience could adjust the antennas to receive both the Soviet and Thai or Laos programmes although the reception quality might be affected somewhat.

"If an antenna is directed to receive either the Thai or Lao programmes, the receiver would still be able to get the Soviet programmes but the pictures would be black and white and soundless," he said.

He said the Film Production Department also plans to produce local films to feed movie theatres and television stations in the future.

The department had completed the shooting of a film, entitled "The Gunfire at the Plain of Jars," the first ever locally made movie, due to be released soon, he said.

He added that the film had been shown to test its popularity in some areas.

The content of the Lao television programmes range from local news, Asian news, foreign news, youth and entertainment programmes, according to the deputy chief.

Boun Mek said the organization made the local and Asian news programmes on its own while editing and dubbing foreign news transmitted via satellite from the Soviet Union.

The national television station still has to rely on serialized and entertainment film made in the Soviet Union and other socialist countries, including Vietnam, he said.

He said the television station is operated solely by Lao staff although Vietnamese experts have been invited here from time to time on trips lasting about a week or two each to help the local staff.

Among about 300 staffers, about 75 have graduated with bachelor degrees or higher, he said.

About half of the 75 graduates were educated abroad. The highest number graduated from the Soviet Union while others completed their studies from Vietnam, Britain, Bulgaria and Germany, he said.

Referring to the Thai television programmes broadcast on Channel Seven from the other side of the Mekong River, Boun Mek said Laos does not have a policy to prohibit the people from viewing the Thai programmes, but would strengthen its national programmes and at the same time educate local people on the "right attitudes" towards the Thai programmes.

He said the plan to build the new radio transmission pole was hatched about four years ago but actual construction began only four months ago--due to difficulties in transporting Soviet equipment to Laos.

The Soviet Union was responsible for the installation of the transmission system which has been finished while Laos will build related facilities such as buildings, he said.

The new radio station, expected to start operation in the middle of this year, will broadcast in both medium wave frequencies for domestic audience and short wave frequencies to disseminate Laos views on various international and regional issues, according to Boun Mek.

The deputy chief of the national broadcast board said the overseas programmes will be transmitted in various foreign languages including Thai, Khmer, English and French.

CSO: 5500/4364

BRIEFS

RADIO STATION PROJECT--To score achievements to welcome the eighth founding anniversary of the LPDR, Lao cadres and workers and Soviet experts working for the project to build a 150-kilowatt radio station under the supervision of the State Committee for News Bulletin, Newspapers, Radio, and Television--further holding aloft the right of being the masters of the country and enhancing the role of the proletariat--have jointly endeavored to fulfill the construction work ahead of schedule. From early this year up to 2 December, they have erected 235 meters of radio antenna, thus exceeding the target by 15 percent. They have completed about 75 percent of the work in building shelters for technical equipment, an electricity generator shed, and other facilities. So far, the construction of the 150-kilowatt radio station for Laos with Soviet assistance, which began in 1982, is 72 percent complete. Currently, the Lao technicians and workers and Soviet experts are diligently and enthusiastically carrying out their work in order to complete the project by 1985. [Text] [BK071558 Vientiane Domestic Service in Lao 1200 GMT 6 Dec 83]

150-KW RADIO ANTENNA INSTALLED--Vientiane, 30 Dec (OANA-KPL)--Lao-Soviet workers recently achieved the installation of a 150-kw radio antenna within four months works [as received] on the basis of mutual assistance and internationalist solidarity. The height of this antenna is 280 m. The construction of this 150-km radio antenna [was] among the main projects included in the First Five-Year Plan. At the first step this antenna will broadcast on medium wave within a range of 300 km. One main machinery building and a high voltage transformer were also achieved. [sentence as received] [Text] [BK301211 Vientiane KPL in English 0917 GMT 30 Dec 83]

CSO: 5500/4364

PRC BUILDS INTERNATIONAL TELECOMMUNICATIONS CENTER

OW021227 Beijing XINHUA in English 1034 GMT 2 Dec 83

[Text] Beijing, 2 December (XINHUA)--China broke ground today for a new international telecommunications center in the eastern suburbs of the capital city, Beijing.

The 13-story building will have the most modern facilities for 2,000 telephone channels, 12,000 telex channels and 4,000 domestic trunk-call channels when completed in 1987.

Song Kui, manager of the project, said: "When the new telecommunications center goes into operation, China's communications with other countries will be greatly facilitated."

China now has telecommunications relations with 120 countries and regions. But Song said that China's level of telecommunications is still low and many of its international calls still have to be connected manually.

Song also said that the new international telecommunications center will have such up-to-date equipment as wave carriers, microwave machines and computer-controlled exchanges, which will be connected with international telecommunications networks through the two satellite earth stations in the city's suburbs.

With this new center in operation, Song said, people in Beijing and other Chinese cities which have international telephone switchboards can call any place in the world through direct dial.

Other services the new center will provide, Song said, include international telegrams, facsimiles, and data transmission.

CSO: 5500/4159

GUANGZHOU-HAINAN MICROWAVE LINE CONSTRUCTION

HK140343 Guangzhou Guangdong Provincial Service in Cantonese 1130 GMT 12 Jan 84

[Text] The television and broadcasting microwave transmission line between Guangzhou and Hainan is under construction. At present, the prospecting and location fixation work of the line has been basically completed, and construction is in progress. It is estimated that the whole line will go into operation in 1986.

The Guangzhou-Hainan special microwave transmission line starts from Guangzhou, passing through Jiangmen, Maoming, and Zhanjiang Cities, Qiongzhou Strait, and Haikou City, to the capital of the autonomous region, Tongza City. The whole length of the line is 988 km. After completion of the line, two or three color TV program series and five or six broadcast program series can be transmitted to Zhanjiang and Hainan at the same time. Furthermore, one color TV program series and three broadcast program series can also be transmitted back to Guangzhou from Zhanjiang and Hainan. At present, this microwave transmission line has the greatest capacity in the television and broadcasting systems of our country.

After the completion of the line, plus the accompanying relevant projects, 29 million people in various areas, including famous native places of Overseas Chinese such as (Wu Yi), (Yue Hui), and Hainan, will be able to enjoy many daytime TV program series, including education by TV, and will be able to listen to many broadcast program series, including stereo broadcasts, which will have a very important significance on the popularization of TV education, broadcasting education, the enrichment of the masses' cultural life, and the resistance and elimination of spiritual pollution.

CSO: 5500/4162

GUIZHOU CONFERENCE ON TV, RADIO BROADCASTING

HK190425 Guiyang Guizhou Provincial Service in Mandarin 2300 GMT 16 Jan 84

[Text] The provincial conference on television and radio work was held in Guiyang. Attending the conference were responsible comrades from television and radio bureaus of all prefectures, autonomous prefectures, and cities, and responsible comrades from all television and radio originating and relay stations.

The conference communicated the spirit of the national conference on propaganda work of television and radio broadcasting. All participating comrades earnestly studied outlines on television and radio work made by the CPC group of the Ministry of Radio and Television, which was authorized for communication by the CPC Central Committee last December. The conference summed up and examined last year's radio and television work and discussed and arranged this year's task for developing radio and television work. All the participating comrades are determined to make every effort to speed up the province's radio and television development so that more people can hear radio broadcasts and watch television programs.

The concrete tasks are: build a high-power frequency modulation television relay station in Zunyi Prefecture and make every effort to commence its operation in 1986 so as to increase the areas in northern Guizhou which are provided with television service; build five medium-power television relay stations in Panxian, Weining, Dafang, Liping, and Zhengan counties; build frequency modulation relay stations in Zunyi, Anshun, and Duyun; build microwave lines for all key frequency modulation television relay stations in mountains near Guiyang so as to broadcast in a better manner the programs of the Guizhou People's Radio Station and the Guizhou Television Station. Rural broadcast networks must be built in the way of combining wired broadcasting with frequency modulation, and the building of wired broadcasting must be carried out mainly under commune and township levels.

The conference also discussed the problem of technical maintenance and management of radio and television originating and relay stations, and formulated relevant rules and regulations.

CSO: 5500/4162

HANGZHOU INAUGURATES COLOR TV BROADCASTS 31 JANUARY

OW010510 Hangzhou Zhejiang Provincial Service in Mandarin 1030 GMT 31 Jan 84

[Text] The Hangzhou television station is formally inaugurating color broadcasts through channel 11 this evening, beginning from 1830 [1030 GMT]. The present broadcasting power is 1,000 watts. Television sets in the Hangzhou city area can receive clear pictures of the broadcast.

On 31 January the station will broadcast programs produced by the station itself, and on 1 February it will relay programs of the Central Television Station. Beginning from 2 February, it will broadcast videotapes of the Shanghai television station's programs recorded on the previous day.

After more than 2 months of preparations, the Jinhua television station will begin test operations this evening. According to tests, the broadcast can be received within a radius of 10 km including the Jinhua city area.

CSO: 5500/4166

TV RELAY STATIONS BUILT IN NEI MONGGOL, QINGHAI

OW250746 Beijing XINHUA in English 0651 GMT 25 Jan 84

[Text] Beijing, 25 January (XINHUA)--The Inner Mongolian Autonomous Region has built 276 television transmitting and relay stations which make programs available to cities, towns and some villages in the region, according to a local meeting on broadcasting.

In recent years the region has allocated large sums to build relay stations in pastoral, forest and mountainous areas. With 370,000 TV sets, 55 percent of the region's population can watch television. On the vast pasturelands, many a herdsman can now sit down to his favorite programs in his yurt with his milk tea.

With the opening of 760 kilometers of microwave channels in the region, television is available to such sparsely-populated areas as the Alxa League in the northwest and the Xilin Gol and Ordos grasslands.

The oroqen Autonomous Banner deep in the greater Xingan mountains in northeast Inner Mongolia now has 11 television relay stations, bringing programs to 80 percent of the Oroqen nationality.

In Qinghai Province, northwest China, one-third of the province's 3.92 million people can now watch television.

The province averages less than six people per square kilometer, in the western part of the province, less than one.

Qinghai's prefectures, counties and enterprises have in recent years invested 10 million yuan in television. The province now has 11,000 TV sets. Relay stations have been built in the Qaidam Basin and at the Longyangxia Hydro-electric Power Station under construction on the Yellow River, one of the largest now being built in China.

CSO: 5500/4168

WANG ENMAO AT XINJIANG BROADCASTING, TV CONFERENCE

HK201405 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 19 Dec 83

[Excerpts] In his speech at the regional conference on broadcasting and television work which opened today, Wang Enmao, first secretary of the regional CPC Committee, emphasized: Broadcasting and television work occupies a very important position in the work of our party as a whole. We must strengthen party leadership over broadcasting and television work. We must also continue to criticize and to correct the incorrect leftist viewpoints on broadcasting and television work. Moreover, we must pay attention to criticizing and correcting the rightist condition of weakness and laxity, to guarantee that our broadcasting and television work will develop forward along the correct path -- the line, principles, and policies of our party.

In his speech, Comrade Wang Enmao summarized the gratifying achievements and remarkable progress in broadcasting and television work which our region has made since the 3d Plenary Session of the 11th CPC Central Committee. Comrade Wang Enmao said: The CPC Central Committee recently issued a circular on approving and transmitting the outline of the report on broadcasting and television work made by the party group of the Ministry of Radio and Television. This document is a programmatic document which will create a new situation in broadcasting and television work, will build up the socialist broadcasting and television cause with Chinese characteristics, and will promote the building of our party's socialist material civilization and socialist spiritual civilization. We must profoundly understand and fully implement it. He said: The CPC Central Committee's circular demands: Broadcasting and television work should be completely and further shifted to the path of having propaganda as the center. With a view to fulfilling this important instruction of the CPC Central Committee, we must, through this vigorous modern instrument of propaganda -- broadcasting and television -- do our party's propaganda work well, publicize patriotism and communism well, publicize well adhering to the four basic principles, publicize well the line, principles, and policies of our party, publicize well our party's policy on nationalities, as well as on the unity of nationalities, publicize well the international and domestic situation, publicize well our party's central tasks and central work, and publicize well the new achievements, new experiences, and new situation in socialist modernization in Xinjiang and all places of our motherland. We must also publicize well the advanced deeds and advanced ideology of the heroic and exemplary figures on all fronts in socialist construction, to educate and encourage people of all nationalities to struggle hard to build socialist material civilization and spiritual civilization. Furthermore, we must also, through broadcasting and television, do well in imparting scientific and cultural knowledge and disseminating outstanding literary and art programs, so as to meet the increasing needs of people of all nationalities in their cultural life and their needs in building socialist material civilization and spiritual civilization.

Comrade Wang Renmao said: At the 2d Plenary Session of the 12 CPC Central Committee, Comrade Deng Xiaoping pointed out: We must not go in for spiritual pollution on the ideological front. We must also by no means go in for spiritual pollution in our broadcasting and television. In carrying out propaganda work, disseminating scientific and cultural knowledge, or introducing literary and art programs through broadcasting and television, we must strictly prevent and resist various forms of spiritual pollution of the bourgeoisie and other exploiting classes.

CSO: 5500/4160

SATELLITE BROADCASTING GROUP LEAVES FOR FRG, FRANCE

OW281916 Beijing XINHUA in English 1435 GMT 28 Jan 84

[Text] Beijing, January 28 (XINHUA) -- A delegation from the newly founded China Broadcasting Satellite Corporation left here today for the Federal Republic of Germany and France to discuss on purchase of broadcasting satellite systems. At the invitation of Messerschmitt-Boelkow-Blom Company (MBB) of Federal Germany and the French National Center for Space Studies, the delegation is led by Lu Keqin, vice-chairman of the board of directors of the corporation, and Wei Desen, its vice president. Since its founding last December, the corporation has contacted firms of Federal Germany, France and the United States.

CSO: 5500/4165

BRIEFS

ZHEJIANG-FUJIAN TELECOMMUNICATIONS PROJECT--Hangzhou, 8 Dec (XINHUA)--Construction of an underground long-distance telecommunications cable between Hangzhou and Fuzhou started on 8 December by the postal and telecommunications departments of Zhejiang and Fujian Provinces. With an investment of 45 million yuan, this 76.6-km cable project is expected to be completed in 1986. [Summary] [Beijing XINHUA Domestic Service in Chinese 0826 GMT 8 Dec 83 OW]

ZHEJIANG TELEPHONE SYSTEM--A 4,380-channel carrier communications system between Hangzhou and Huzhou met standards during an appraisal held in hangzhou between 21 and 27 November. The 4,380-channel system for the Hangzhou-Huzhou section is built on the original 1,800-channel equipment of the Beijing-Shanghai-Hangzhou carrier communications system. [Summary] [Hangzhou ZHEJIANG RIBAO in Chinese 28 Nov 83 [no page given] OW]

LIAONING MICROWAVE LINE--On 29 November, Liaoning Province started building a microwave communication line between Shenyang and Dalian cities. The construction project will be totally completed on the national day of 1984. After the construction, the people across Dalian City not only will be able to view both black-and-white and color television programs released by the stations of Beijing, Liaoning, Shenyang, and Dalian, but also will get rid of their long-standing backward situation prevailing in long-distance communication. [Text] [Shenyang LIAONING RIBAO in Chinese 30 Nov 83 p 1 SK]

LIAONING RADIO, TV SERVICE--Inspired by the guidelines of the 12th Party Congress radio and television broadcast services have been vigorously developed in Liaoning Province. At present, the 11 radio broadcast stations in the province have offered 14 sets of programs and the six TV stations have offered 7 sets of programs. Along with the development of the electronics industry and the improvement of people's living standards, the position and role of radio and TV broadcast has become very important in the people's daily life and the number of radios, TV sets, and cassette recorders owned by the people has increased by a big margin. According to incomplete statistics, at present, our province has 8 million radio sets, 2.76 million TV sets, and 2.68 million wired broadcast megaphones. [Summary] [Shenyang Liaoning Provincial Service in Mandarin 1030 GMT 14 Dec 83 SK]

NEW OPEN-CIRCUIT TELEVISION SYSTEM--Xian, 3 Dec (XINHUA)--A new-type, multi-purpose open-circuit television transmission system, which recently passed technical appraisals in Xian, Shaanxi, has filled a gap in China's video industry. The newly developed transmission system uses radio waves to transmit images and accompanying sound. The size of the transmitter, which operates in a way similar to those used in video and radio broadcasting, is about the same as that of a small television transmitter. Using video cameras, video tape records and a monitoring device, it transmits black-and-white, color, glimmering [weiguang 1792 0342] and infrared video images. Through this system, video images can be televised live with accompanying sound up to distances up to 100 kilometers. It is a modern technical device for use in long-distance observation by defense, public security, fire, traffic control, construction and scientific research departments. The new system was developed by the Xian Radio Technical Research Institute under the Ministry of Space Industry. It has been tested in urban centers, in the field and in the air. It is technically sound operationally and can withstand strong radio interference while transmitting bright and stable images. The transmitter is small, weighing only 4 kilograms. It is handy and easy to operate. Mass production will begin at the Hebi No 1 radio plant in Henan in cooperation with the Xian Radio Technical Research Institute. [Li Yuqiao] [Text] [OW060257 Beijing XINHUA Domestic Service in Chinese 0012 GMT 3 Dec 83]

HONG KONG PHONE LINKS--Guangzhou, 17 Dec (XINHUA)--Twenty cities and counties in Guangdong Province now have direct telephone links with Hong Kong, compared to less than 10 in 1982, the provincial Posts and Telecommunications Administration announced today. Guangdong has been designated along with Fujian to practice special economic policies to attract Hong Kong, Macao and foreign investment. [Text] [OW171307 Beijing XINHUA in English 1053 GMT 17 Dec 83]

JILIN TV MICROWAVE LINE--A radio and television microwave line between Changchun and Hunjiang recently went into operation, and began to transmit television programs on the evening of 22 January, thus, providing favorable conditions for receiving stable and clear television programs in Tonghua Prefecture, Jilin Province. [Excerpt] [Changchun Jilin Provincial Service in Mandarin 1030 GMT 29 Jan 84 SK]

HEILONGJIANG TV SERVICE--So far Heilongjiang Province has built more than 300 television stations and relay stations, ranking first in China. Now all the people in province can receive central and local television programs. Rapid progress has also been made in building microwave lines. By the end of 1983, more than 30 microwave stations will have been built and made available. [Summary] [Harbin HEILONGJIANG Provincial Service in Mandarin 1000 GMT 30 Jan 84 SK]

SHANDONG COUNTY RADIO STATION--Over the past few years, radio service has developed rapidly in Ningjin County, Shandong Province. With the approval of the Provincial Radio and TV Department, the Ningjin County radio station was established on 1 January 1984. The inaugural meeting was held on 10 January. [Summary] [Jinan Shandong Provincial Service in Mandarin 2300 GMT 10 Jan 84 SK]

CSO: 5500/4162

USSR-AIDED LAO TV CLEARLY RECEIVED IN NONG KHAI

BK010555 Bangkok THE NATION REVIEW in English 1 Feb 84 p 6

[Text] Laotian television broadcasts from a Soviet-built station are being clearly received by Thai viewers in Nong Khai, a northeastern MP of the Social Action Party (SAP) said yesterday.

Suwit Khunkitti (SAP-Khon Kaen) yesterday replayed portions of a Laotian news programme he video taped in Nong Khai on Jan 25, for the press at Parliament. Suwit called on the government to improve the Thai television station in the northeast. The Laotian programmes, he said which were broadcast in Lao were made with technical assistance from the Soviet Union. In addition, Soviet programmes are broadcast in Vientiane from the Soviet Union via satellite on another channel. He claimed that a number of Laotian television technicians are being trained in the Soviet Union, and are expected to return to Laos very soon to improve the national Laotian television station in Vientiane.

Suwit said the Laotian television programmes might affect the political thinking of the Thai audience watching them, Almost every household in the northeast owns a television set, he said. The Laotians broadcast programmes on politics, foreign affairs, education, and culture. The station was set up with aid from the Soviet Union.

Apparently alarmed by the programmes, Minister of the PM's [Prime Minister's] Office Chan Manutham earlier this month called on the government to lift a ban on television broadcasting in the northeast and improve the television station in Khon Kaen. He also said that the Public Relations Department has asked for 200 million baht to improve the programmes and power of TV Channel 5 in Khon Kaen, which broadcasts to the whole northeast.

CSO: 5500/4363

POLICE TO SET UP POWERFUL RADIO STATION IN SOUTH

Bangkok THE NATION REVIEW in English 12 Jan 84 p 6

[Text]

HAT YAI – Police are setting up a radio station with powerful transmission to coordinate radio contacts among all police forces in the five southernmost provinces, a senior police official said yesterday.

Pol Maj Gen Salarng Bunnag, Commander of the Zone 12 Provincial Police, told *The Nation* that the centre will also store a computerized system to keep crime records.

He said the new radio and information centre will tremendously help boost the police forces' capability in coping with crime in the five provinces of Songkhla, Yala, Pattani, Narathiwat and Satul.

The centre is being constructed here at a cost of about two million baht and is scheduled to be completed next year.

Pol Maj Gen Salarng said a post for the radio transmission will be erected on the top of Kor Hong Hill. He said the high frequency radio transmission will cover all the five southern provinces which constitute one of the most sensitive areas in the country.

The new radio station will coordinate radio contacts with the tourist, railway, border patrol, marine and local policemen, he said.

He said the construction is financed with budget of the local police forces and contributions from businessmen.

A computerized information centre will also be located in the station to store records on all types of crime in the region to enable police to launch quick investigation into criminal cases.

CSO: 5500/4363

BRIEFS

BROADCASTS FOR WORKERS IN MIDDLE EAST--Thai radio broadcasts will be beamed to the thousands of local workers who get jobs in the Middle East in the next two years. Before leaving for a 15-day Middle East tour yesterday, Deputy Foreign Minister Praphat Limpraphan said the shortwave broadcasts for the estimated 200,000-strong Thai audience would be similar to the Free Asia Radio service run by the Foreign Ministry. Ministry information officers were conducting a feasibility study and the station should be operational in two years, he said. [Excerpts] [BK090131 Bangkok BANGKOK POST in English 9 Jan 84 p 3]

CSO: 5500/4363

TELECOMMUNICATIONS DEVELOPMENT, SYSTEMS DESCRIBED

Administrative Radiotelephone Network

Warsaw RADA NARODOWA GOSPODARKA ADMINISTRACJA in Polish No 22, 31 Oct 83 pp 44-45

[Article by Lucjan Tabaka: "ASLR: Administrative Network of Radiotelephone Communications"]

[Text] Local government administration agencies at the provincial and lower levels in the operation use various communication media, mainly telephones and telegraphs. Regrettably, the latter is used just occasionally. Recently, a number of provinces have started building their ASLR [Administrative Network of Radiotelephone Communications]. The scope of such a network is the entire territory of a province. This is, basically, a means of direct communications for government administrative agencies, which serves the following purposes:

--ensuring proper management in the relations between the province government and local administrative agencies;

--ensuring communications for control of rescue operations in cases of natural calamities and similar occasions; and

--ensuring communications for purposes of civil defense.

A great number of provinces already have such networks. The building of networks, especially in provinces with large territories and diverse terrain, raises technical and organizational problems. They often involve higher investment and special construction processes. Despite these outlays, practical utilization is still low and, basically, reduces to various short-term functions. This is caused by several factors: lack of proper popularization, ignorance of methods of utilization, adherence to the more customary means of communication (telephone), and the required discipline of intercourse through ASLR due to regulations in radiocommunications and simplex operation type (the impossibility of interrupting the interlocutor during the course of communication).

Organization

The administrative radiotelephone communication networks must ensure direct radiotelephone links between the provincial government and all local government administrative agencies and mobile subscribers. For this purpose, a dispatcher station is set up at the province government headquarters (radiotelephone central exchange, central station), which must be furnished with the equipment for operating with various telephone networks (CA, CB, MB, Telvox). This allows for communication between selected telephone and radio subscribers in the area and between the two groups, respectively. Telephone contacts of the CB, MB or Telvox type linking directly privileged subscribers ensure fast radiotelephone contacts. The remaining staff of the province government agencies and eventually other institutions will be able to obtain radiotelephone contacts with the radio subscribers in the area through the public telephone lines or internal telephone line of the institution after obtaining connection to the respective telephone number linked with the dispatcher station (similarly as with conventional interurban telephone communications).

At the headquarters of local government agencies (city government, parish government), radiotelephones will be installed as terminal units of ASLR. Some provinces have capability for installing the MORAD system, which, among other things, makes it possible to connect three terminal units for each radiocommunications subscriber. This takes away the need of calling each speaker to the telephone in the provinces, where, for technical reasons, the MORAD system cannot be installed; especially in the city administrative agencies, the use of radiotelephones that can be used in combined networks with local telephone equipment, such as FM 306, the stationary version, is indicated. This will require preliminary adaptation of this equipment for selective call and announcement and addition of a manipulator. This will eliminate the need for calling individual officers to the telephone and reduce the time of radiotelephone communications, increasing system capacity.

A modern radiotelephone communication network operates using selective calls and announcements, ensuring privacy of conversations and avoiding the overload of telephone equipment for subscribers which do not take part in the conversation.

Possibilities of Use

The radiotelephone systems of provincial government agencies are different in terms of the components of ASLR system, but the basic principles of their use are the same. They are determined by the radiocommunications regulations and the purposes of the ASLR.

1. The initiation of communication by radio subscribers with the operator (dispatcher) of the basic dispatcher station occurs:

• automatically, by sending a signal of selective announcement (pressing intermittently the required key), which is only possible in systems where the central station has a radio board with optical announcement and call signalization;

• vocally, by using the signature of the basic station and the speaker's signature, e.g., "Wisla, this is Wisla 3340, over." (Wisla is the signature of the basic station, and Wisla 3340 is the signature of the radio subscriber).

In either case, before calling the central operator, the caller must make sure that the channel is not occupied. In exceptional cases, however, the communication can be even established with an occupied channel using the communication interruptor.

2. Exchange of messages may occur after establishing contact with the operator of the basic station and obtaining the required linkage. In practice, the exchange of messages can be between:

• subscribers of different telephone networks (CA, CB, MB. Televox) operating through the central dispatcher station and permanent radio subscribers (local, administrative agencies and from local agencies to central agencies);

• mobile radio subscribers (provincial government leadership) and permanent radio subscribers and vice versa; in either case, preliminary approval by a central provincial operator is needed;

• arbitrary stationary radio subscribers in the area, also establishing contact upon approval by the central dispatcher.

3. The most effective method of using ASLR is circular operation, which makes it possible to send radio messages to all (or selected) radio subscribers at the same time and conduct industrial radio conferences or general conferences with an arbitrary group or all subscribers. Each of these methods requires the proper discipline and organization due to the simplex principle of communication. For instance, confirming the receipt of a radio message in a circular exchange cannot occur immediately after reception, but upon caller's summons. The method of conducting radio conferences should also follow this principle--the initiator of the conference should indicate the radio subscribers who are to speak next. During the course of the conference, using a properly programmed radio switchboard is useful.

4. Eventually, after ASLR systems are furnished with additional equipment, such as telegraphic translators, it will become possible to use telex systems through radio communications, also to send messages to circular subscribers.

Conclusions

The problem of efficient utilization of ASLR is essential, especially in economic terms. For this reason, it should be of interest to all members of government administration at provincial and basic levels who must appreciate this new (in this sector) principle of direct communication. A complete utilization of administrative radiotelephone communications network will bring tangible, measurable and not measurable effects.

The measurable effects are the following:

- discontinuance of maintenance of special dedicated telephone lines for contact between province government and local administrations of the basic level--which eventually will bring major savings in maintenance of these lines by provincial governments; postal and telecommunications departments, on the other hand, will be able to put these lines to more effective use;

- reducing the number of conversations between cities in automatic and manual telephone contacts within a province, leading to further budget savings for the provincial government thanks to decreased telephone bills and lesser loads on the public telephone networks.

The effects that cannot be quanitified include general improvement of contacts, especially faster links, the possibility of sending messages to several or all subscribers simultaneously and a major improvement in the quality of communications (the possibility of regulating the volume of vocal sound), as compared with traditional networks.

Exchange of messages through the administrative radiotelephone network has certain shortcomings:

- it requires the proper discipline in conducting conversations; and

- conversations can only be conducted in the simplex mode--that is, when one party is speaking, the other party cannot interrupt.

It should be pointed out that maintaining ASLR in proper technical condition and servicing the central dispatcher station at the province government headquarters involve employment of skilled technical personnel and adequate technological facilities. Generally, however, considering all the pros and cons, we will obtain a major prevalence of benefits (especially since such networks already exist and they should be utilized to their fullest extent), which will allow a fast amortization of costs of ASLR systems, given a truly rational and complete utilization.

Help to Communications

Communications, unlike other economic areas, has effectively withstood the effects of the crisis:

• in the sphere of services, the economic results have been improved greatly (both quantitatively and qualitatively, without counting the increased tariffs) compared to 1979 indicators;

• the communications industry, despite hard currency deficits and economic restrictions, maintained a relatively high service standard; the export is also expanding and productivity growing;

• in the development of communications facilities, investment has been initiated which previously was withheld because of a shortage of funds or labor.

• despite fuel shortages and an inadequate supply of motor cars, the Ministry of Communications has attained the highest economic indicator of serviceability of its automobiles.

Despite these achievements, the general conditions of communications are still unsatisfactory.

Postal and telecommunications services are still below customer expectations, although in 1982 post offices handled more than 2.26 billion zlotys of remittances within the nation, 22 million parcels in domestic and foreign traffic, including 10 million foreign parcels (a fivefold growth) and 1.7 billion letters. Difficulties are partly due to inadequately developed networks of postal and communications offices, which makes the postal services less accessible and increases service time. The density of the network of these offices in the nation varies greatly; for instance, in Jelenia Gora one post office services about 4,000 residents, and in Warsaw Province 10,000. The area of the district serviced by one post office in Lodz Province is 12 square kilometers and in Suwalki Province 70 square kilometers.

The waiting time for a residential telephone is still quite long. The disproportions are especially significant in the density of telephone networks in cities and in the countryside. On average, every 26th resident in the nation has a residential telephone, that is, every 16th in the cities and every 149th in the countryside. The ministry faces major difficulties in overcoming the "investment barrier," especially in new residential districts. The infrastructure, not only postal and telephone networks, is falling behind the residential construction rate. In the development of telecommunications in the countryside, a basic obstacle is long distances, difficulties in constructing buildings for automatic exchanges, installation and modernization costs of communication lines and especially shortage of skilled labor to perform these functions. These difficulties and shortages of material, including cable and steel wire, are responsible for the fact that, of 100,000 telephones installed annually in the country, hardly 7,000 are placed in rural areas.

"In spite of these and other difficulties," said the Minister of Communications, Professor Wladyslaw Majewski, at the press conference on Oct 13,

1983, "the plan for 1983 will not only be fulfilled but overfulfilled." In 1983, 80,650 new subscribers will be connected to the telephone network. Currently, more than 100,000 units are to be installed, that is, 25 percent above the plan.

This is a result, among other things, of putting into operation larger investments of urban telephone systems that are already functional: central automatic exchanges at Krakow, Piotrkow Tryb., Nowogard, Lomza, Olsztyn, Czeladz and Bialystok. On Oct 7, 1983, the 55-year-old telephone exchange in Lodz was replaced by a new E-10 type installation for more than 19,000 units. Before the end of 1983, telephone exchanges are to be placed into operation in Piaseczno, Wroclaw and Bystrzyca. Before the end of the year, more than 700 telex subscribers will be connected to the network.

Development of telephone services in the current five-year period will be just slightly slower than in the preceding five years. Additional 416,000 subscribers will be connected to the network, compared with 476,000 in the previous five-year interval. Local telephone networks will place an emphasis on meeting the telephone needs of parish administrative agencies and large residential areas totally devoid of access to telephone lines. An increase in the telephone availability in the countryside is also foreseen, with simultaneous growth of the number of rural exchanges having round-the-clock service.

Of basic investment before 1985, plans envisage completion of the development of automatic intercity exchanges at Gdansk and Krakow and the construction of new intercity exchanges at Szczecin, Lublin and Wroclaw. Implementing these plans is feasible, but we should be aware that the Ministry of Communications does not have adequate production capacity. A larger participation of other ministries and central agencies, provinces, local and parish governments will be required. "The attitude of local leaders, however," said Minister Majewski, "varies." Examples of good cooperation are contracts concluded between the Ministry of Communications and Pila and Jelenia Gora Provinces; under these contracts, the provinces will construct buildings and the ministry install the communications facilities within them.

Warsaw 7-Digit Telephone System

Warsaw ZYCIE WARSZAWY in Polish 10-11 Dec 83 pp 1, 6

[Article by Jerzy Kozierkiewicz: "High Prospects Before Metropolitan Telephone System: 7-Digit Numbers Are on Threshold"]

> [Text] (from our own correspondent) More than 150,000 people in Warsaw are waiting for their telephones. The list is becoming longer every day, and only few lucky ones see their dreams coming true. A major obstacle in meeting this demand is the capacity of Warsaw exchanges. "Salvation" will come with a change to seven-digit numbers.

The Warsaw Telephone Communication Node covers the area of Greater Warsaw and surrounding cities of Pruszkow, Piaseczno, Grodzisk Maz. (partly), Otwock and Wolomin. The organization of the network now comprises two zones: intracity or metropolitan zone and external suburban zone.

The telephone network so far is based on a six-digit system. Digits 1, 2, 3, and 4 have been reserved for urban subscribers, and digits 5 and 6 belong to the external zone. 0 and 8 have traditionally been reserved for automatic connection in intercity communications and 9 for special services (emergencies, orders, complaints, etc.). The number that is still available is 6. It is going to be key for the future seven-digit system.

The current capacity of the Warsaw network is 1,000,000 numbers, 90% of which has already been assigned. The free "6" and the minimum reserves would allow introducing an additional 150,000 telephones. That would be the end. The complete capacity of the exchanges would be exhausted. It would then be necessary to switch the entire telephone system to seven digits, and that not only for the city. In view of the current situation with the technical base, shortage of space, equipment and high operational costs, that would be a virtually impossible proposition.

For this reason, it was decided to develop a new seven-digit system in parallel to the existing six-digit numbers. The connection between the two networks will be conducted through transit exchanges. The free "6" number would serve to link the two networks, and for interconnection within the seven-digit sphere. In practice, that means that all new telephones, regardless of location, will begin with 6. After dialing 6, without waiting for a further signal, one will dial the remaining six digits. If a caller from a seven-digit number wants to be connected to a six-digit subscriber, he will dial only six digits.

Three transit exchanges are under preparation in Warsaw. At Muranow and Mokotowo districts, they have been housed in the buildings of existing telephone exchanges. The Mokotowo building also houses the Technical Operation Center. Equipped with R-11 computers and the peripheral devices, it will be linked with the transit exchanges. The third transit exchange will be housed in the newly built Deputy Club. These will be electronic exchanges of E-10 type, manufactured in Poland. Currently, work is under way in preparing the premises and stocking the necessary equipment. Before the transit exchanges are brought into operation, the reserved digit 6 will be temporarily assigned to the new exchange at Ursus that will be connected to the network at the end of December 1983-early January 1984. The first seven-digit numbers will be given at the end of 1983 to subscribers of exchanges near the Barska Street, Szemblek Place and Ursus areas.

What are the benefits of operating a system with two types of numbers--six- and seven-digit? Because the transit exchanges are located in existing buildings, the cost is greatly reduced and their implementation is accelerated.

The introduction of the seven-digit numbers in Warsaw will not eliminate overnight the waiting lists that have been created in more than 10 years. It will, however, open new practically unlimited possibilities, and we hope that the Warsaw district administration of postal and telecommunication services, together with the city government, will make use of this new practically unlimited capacity. Nobody needs explaining, after all, that the telephone is not a luxury but a profitable investment, bringing constant and sizeable revenues to the state.

Telephone Installation Plans

Warsaw RZECZPOSPOLITA in Polish 4 Jan 84 p 4

[Article by T.G.: "Facts, Numbers and Comparisons: On the Telephone Waiting List"]

[Text] Leafing through the statistical yearbook, one sometimes comes across surprises. For instance, the number of new telephones installed annually is smaller than the number of registered private cars. In 1981, the number of new telephones was 119,000, while as many as 254,000 cars were registered. In 1982, the number of homes that received telephones was 142,000, compared with 226,000 private cars.

Is it easier in Poland to buy a car than to have a telephone installed? Obviously it is. If one has enough cash, one can go to the automobile exchange and find a car of practically any make. If one has foreign currency one can buy at Pewex stores a Mercedes or Polonez. Finally, one can win a car in Toto-Lotek or national money lotteries. However, installing a telephone in an apartment in a new residential area, which, as specialists say, is not "wired," is impossible for any money, be it in zlotys or dollars, and cannot be won in any numbers games or lotteries. Actually, it is not only wires that are missing, but there is a shortage of new telephone exchanges with thousands of free unassigned numbers to cover a long waiting list.

In 1975, there were 597,800 applications for telephones, including 55.8 percent from private residences. In 1980, the figure rose to 1,019,262, including 91.6 percent residential. In 1982, it grew further to 1,174,038, and in 1983 private applications accounted for 93.7 percent of the total.

A result of the shortage of cables and exchanges that was not counteracted properly during the past decade is the fact that Poland currently is the European nation with the smallest number of telephones per 100 residents.

In the years 1983-85, the network will be increased by 250,000 telephones, mostly residential. By the end of this five-year period, the number of subscribers per 100 residents will rise to 6.32, including 9.36 in urban areas and 1.7 in the countryside.

A real development of telephone communications, however, will not come before the 1986-95 period. Investments and modernization is expected to raise the number of subscribers in the country in 1986-90 by 650,000, including 580,000 in cities and 70,000 in villages. In 1991-95, however, this growth will be even greater, amounting to 800,000 new telephones, with 715,000 in urban areas and 85,000 in the countryside.

Altogether in the nation, the number of telephones will increase from 2,108,590 existing in 1980 to 3,808,590 in 1995. The number of telephones per 100 residents will also increase from 5.79 to 9.69.

Underused Telex System

Warsaw KURIER POLSKI in Polish 6 Dec 83 p 1

[Article by (paf): "Cheaper and Faster Than Telephones: Neglected Telex; Automatic Contact with Almost the Whole world; Lines and Numbers Are Available, No One Applies; Only Polonia Enterprises Appreciate Telex"]

> [Text] It is well known that we are far behind the world average in per capita number of telephones; no less known is that any improvement will not come fast. If there is an area in communications which gives grounds for optimism it is the telex.

It has existed in Poland for 32 years. Compared to telephones, telex communications have certain important advantages. Information is transmitted in a written form, as a document, and requires no human participation on the receiving end.

The national telex network is completely automated. Likewise, connections with 130 nations on all continents are automatic, and there are semiautomatic communications with many other countries. Finally, a telex "conversation" is cheaper than an equivalent telephone communication session, especially in international communications.

The last and, in our conditions, important merit of the telex is that one would not wait a long time for it to be installed, unlike the telephone, which takes more than 10 years on the waiting list.

The Ministry of Communications said that it has available an excess of unassigned numbers at telex exchanges and has enough telex equipment units imported from the GDR and Czechoslovakia waiting for subscribers. Currently, their number in the country is about 27,500, but existing reserves would allow to increase this number in a short time by 50 percent.

Unlike the telephone, telex has no problem with shortage of intercity lines. Telkom-Teletra in Poznan produce so-called multiplex telegraph equipment sufficient to cover national demand that allows to convert one telephone line to 24 or 46 telex lines.

After a boom in telex development in the 1970's, for some reason we now observe a slackening interest on the part of enterprises and institutions in this profitable form of communications. Many managers are sending letters and documents through messengers and couriers, and even if they have a telex, use it as a table for flower pots. Telex advantages, however, are fully appreciated by the Polonia Enterprises and craftsmen, especially those exporting their goods. Most new subscribers in this year fall into this category.

9922
CSO: 5500/3010

BRIEFS

NEW SATELLITE TV NETWORK--Miguel Alva, the chief of the National Communication System, has announced that through a French-Peruvian agreement, a satellite television network will be installed and that it will cover important border points through 15 transmission plants. [Text] [Lima Diplomatic Information Service in Spanish 2207 GMT 22 Jan 84 PY]

CSO: 5500/2030

MINISTER INAUGURATES COMMUNICATIONS YEAR SEMINAR

Dhaka THE BANGLADESH TIMES in English 22 Dec 83 pp 1, 8

[Text]

Deputy Chief Martial Law Administrator Rear Admiral M. A. Khan said in Dhaka on Wednesday that the Government was committed to make the communication system of the country efficient and effective.

The DCMLA, who is also incharge of the Ministry of Communications, was inaugurating a two-day seminar organised at Sonargaon Hotel in connection with the observance of the World Communications Year-1983.

Referring to the achievements made in the field of communications both in the national and international sectors during 1983, Admiral Khan said that achievements during the year "can be termed as a communication revolution in Bangladesh".

The inaugural function was addressed by Mr M.A. Rashid, Secretary, Post and Telegraph Division, Mr A.H.M.N. Huda, Chairman, Bangladesh Telegraph and Telephone Board and Mr Fariduddin Ahmed, Director General, Bangladesh Post Offices.

In the internal sector, the DCMLA said, T&T Board had installed 61 exchanges out of which 57 were located in rural areas. Reaching the modern communication facilities to the rural people was one of the main themes of the World Communications Year-1983, he said.

Moreover, the DCMLA said, the Board had provided about 11,400 auto-connnections and nearly 2,000 manual-connections in various upazilas of the country including introduction of nationwide dialing system.

Admiral Khan said that in the international sector, T&T Board was proud to be the global partner in the global telecommunications network by introducing international subscribers dialling.

While appreciating the dedication and competence of the telecommunication officials, engineers and technicians he said, "they can be rated as one of the most efficient group in Asia." He said that they would be of great help in developing the communication facilities of the country further.

Admiral Khan said that the World Communications Year provided an opportunity to review and analyse the policies of communications development, identify the bottlenecks which impede a balanced development of communications infrastructure, examine possible solutions and explore ways and means to translate decisions.

He said that the observance of the Communications Year was also an occasion to harmonise at the national level across the broad needs and requirement with the future development of communications technologies and policies.

Keeping in view the slogans—"communications for all" — of the World Communications Year, Bangladesh Government had undertaken a good number of programmes, he said.

He expressed the hope that the seminar organised in this connection would come up with valuable recommendations for further development of communications.

The DCMLA also formally released a set of three commemorative postage stamps marking the observance of the World Communications Year.

In his presidential speech, Mr M.A. Rashid said that 86 per cent of the world's telephones were in the developed countries of the free world with a population of about 760 million. On the other hand, he said, the third world countries having a population of about 2000 million had only seven per cent of the world telephones while the socialist countries with a population of 1300 million had only seven per cent telephones.

Bangladesh with population of 93 million, the P&T Division Secretary said, there were only 1,50,000 telephones while Japan with a population of 119 million had over 39 million telephones.

He said that T&T Board had undertaken the challenging task of providing telephone exchanges in all the upazilas and within next few months they would be able to cover the whole country.

Mr Rashid said that during the year 1983, the Post Office had been able to construct 38 new post office buildings including some major buildings like Khulna GPO and Comilla Head Office, expansion of Chittagong GPO and the Airport Mail and Sorting Office. They had also undertaken constructions of 66 more post office buildings which were at various stages of progress.

He suggested that International Telecommunication Union (ITU) should take a policy under which one foreign expert recruited and paid by it for the developing countries along with the recruitment of five local talents to work as counterparts to pick up the expertise from the foreign experts.

CSO: 5500/7082

OFFICIAL EXPLAINS NATION'S TELECOMMUNICATION POLICY

Dhaka THE BANGLADESH OBSERVER in English 21 Dec 83 Supplement p 8

[Article by A. H. M. Nurul Huda, chairman, Bangladesh Telegraph and Telephone Board: "Telecommunication Policy of Bangladesh"]

[Text]

SINCE the Second World War there have been very rapid and gigantic strides in the field of telecommunication development, contributing not insignificantly towards emergence of the Supersonic Era. Indeed, it is becoming increasingly difficult for the developing nations to catch up with the meteoric pace set up by the electronic engineers throughout the World to develop more and more sophisticated equipments to cater better, faster and more reliable systems, more satisfying to the people than ever before. Notwithstanding multifarious constraints, endeavours are however being constantly made by all nations to improve these systems in line with these latest developments and maintain the same properly in order to provide better service locally, and at the same time fit in at the internation level efficently.

Telecommunication, as we all know, plays an important role in the economic development, social progress and administrative management of a country. Progress of a country or of a community without the development of telecommunication is hardly conceivable. The number of telephones enjoyed by its people in relation to the total population of a country is, at present, considered as a yardstick of its prosperity and technological achievements.

On the occasion of observance of World Communication year, 1983, this present article is devoted to a brief discussion on the salient features of the telecommunication policy of Bangladesh.

Situated at the confluence of two of the mightiest rivers of the world, the Brahmaputra and the Ganges and intersected by hundreds of smaller rivers and watercourses, Bangladesh is a small deltaic country consisting of hardly 55,000 square miles with a population of about ninety millions, 85 per cent of whom reside in villages. Frequently visited by floods, droughts and cyclones, there are heavy exodus of people from the rural areas every year, especially since independence in 1971, thus giving rise to a chain of socio-economic problems, and further straining the meagre quantity of amenities available in the samll number of cities and towns. Besides people arriving at urban areas in search of employment and livelihood, once accustomed to the amenities and opportunities of city life prefer to settle therein instead of returning to their villages.

An expanding and efficient telecommunication system can however influence this socio-economic process in more ways than one. In case of availability of a reliable telecommunication service with long distance networks, people may prefer to live away from the cities and towns or settle at Zilla and Upa-Zilla Headquarters where land is available at cheaper rates or may not require to come to the city or town all the time at all.

Even within the city itself, people will prefer to get most of their works done through telephone rather than going over from place to place by car bus or any other means of transport. The bankers, the industrialists and the business community will receive or pass on all the vital information through the medium of telephone and telex system within the minimum of time and minimum cost. Telecommunication provides the quickest means of passing urgent information to agencies concerned with the maintenance of law and order, medical aid, firefighting etc. In fact, an efficient telecommunication service is indispensable in the field of national security and defence and running administration of various Government agencies smoothly.

Not only nationally, telecommunication system is the most readily available and effective means of communication between one country and another. During international summit conference, it is not difficult to know the views of individual countries or consult the home Governments on urgent and important issues because of efficient International Trunk, I.S.D. and Telex services. During the recent 14th ICFM Conference at Dhaka, more than 700,000 words were transmitted by the delegates and the journalists.

It is thus seen that the telecommunication system has an important role to play in all spheres of our everyday activities as well as in shaping the economic, social and cultural

life of our people.

The Management of telecommunication system in Bangladesh is at present vested in the T & T Board which is responsible not only to provide reliable and efficient telecommunication facilities and ensure proper implementation of all development programmes in an objective manner within our economic limitations, but also to apprise the Government of all recent developments in this field as well and recommend the general policies to be adopted in this context. Our aims have been not only to meet the immediate needs of the country on a short term basis, but also to effect a far reaching and meaningful impact on the future socio-economic fabric of our national life.

The telecommunication service of any country may be under State management or under the Management of Company/Companies, which greatly depends on individual national objectives and policies.

In Bangladesh, the T & T is a state managed organization. If it is run entirely as a Commercial venture, it may fail to fulfil the national objectives of social benefit and rural development. Again, if the commercial aspect is not at all considered, it may become a financial burden on the Government. Bangladesh T & T can however be run on a commercial basis, but, of course on condition that due consideration should be accorded to the public utility aspects. At Dhaka Chittagong, Khulna and in some business centres of Bangladesh, there are heavy demands for telecommunication services and as such, these facilities are being extended at a faster rate to those areas. At the same time, installation of small and medium size exchanges to Upazilas and district headquarters have been taken up. It is observed from experience that in some places like Upazila headquarters, installation of exchange at the initial stage is not remunerative, but in course of time with the growth of business activities, demand increases sharply. To make telecommunication in Upazila and Zila Headquarters more commercially viable, long distance trunk facilities with Zilla Headquarters, capital city or to nearby commercial places—is a must. In smaller places, telephones are demanded, not much for local, but for distant trunk calls mostly.

At present in the field of telecommunication, many new developments have taken place and new systems are fast coming up, countries having vast resources may readily switch over to those new systems. But as our resources are limited, we cannot discard the old system and adopt a new system overnight. Therefore, services are to be obtained from the old system to the maximum by proper maintenance. Besides any change over by introduction of a new system brings in its wake various difficulties, as it will not be an easy task to properly maintain such system for lack of trained personnel. Training of requisite manpower also requires sufficient time and investments.

In International communication, adoption of a new system, in some cases, becomes obligatory as the present national telecommunication system is a part of Global system. In addition, demands for International circuits has also been increasing very rapidly. With the age-old H.F. (High Frequency) system, it is hardly possible to maintain reliable International Communication. So Bangladesh, for International purposes, has already switched over to the Satellite Communication System. For International Subscriber Dialling, Electronic switching and computar control system has since been introduced.

As Bangladesh is a flat, riverine and cyclone-prone country, land line or underground coaxial cable system for its long distance communication does not appear to be suitable. VHF/UHF system is still being used in some places to meet the long distance telecommunication requirement. But its channel capacity being very limited, it cannot cater the growing need. With extension of telecommunication facility to the Upazila and District Headquarters, channel requirements for trunk services will be further stressed and considerably increased. So high capacity Microwave System may meet present and progressive requirements. In the existing land-line system, theft of copper wire is very rampant, causing colossal financial loss and serious disruption in telecommunication service. Considering all these aspects a gradual switch over to the radio system by replacing the present land-line is being actively considered.

International requirement of Bangladesh at present is somewhat different from what it had been before the war of liberation. After Bangladesh came into being as an independent entity, its political, commercial and International needs assumed new dimensions consistent with its national requirements. The T & T Board during the past few years, has opened many new International circuits. Very recently International Subscriber Dialling system has been introduced in the country. Teleprinter Exchanges for National and International messages have also been installed and many commercial enterprises, during this short period, have become Telex subscribers, the demand of which is rapidly increasing. Demand for International Communication does not appears to depend merely on the vastness of the country but to a great extent on the social, industrial and commercial progress, the country has achieved.

Again, with the development of Microwave-electronics and Computer, many new and more sophisticated telecommunication systems are being developed. These new systems, no doubt, have inherent advantages in respect of service and maintenance, but before we decide to introduce any of these systems, we should carefully consider—financial involvement, availability of trained manpower for maintenance efficiency of the new system to

inter-work with the existing ones under prevailing conditions and continuity and assurances of supply of spares.

It is generally observed that some foreign manufacturing firms, while introducing a new system, sell their equipment and spares at a cheaper rate. But soon, after due to technological advancement and international competition, suppliers often switch over to a new system. Procurement of equipment, spares of the older system, in such circumstances, he comes a big problem. Even when spares are available, the price is increased manifold. So, while deciding on the introduction of a new system the prospect of installing its manufacturing plant in the country should also be considered and explored so that local supply may be available for a considerable period of time.

In Bangladesh, we have two factories, one to manufacture telecom. exchange equipment telephone sets, PABXs at Telephone Shilpa Sangstha Tongi, Dhaka, with annual capacity of 20,000 line units and the other, to manufacture cables at Bangladesh Cable Shilpa Khulna with Annual capacity of 2,00,000 conductor kilometers respectively. Cables are also being exported after meeting the local requirements. The prices of raw materials as well as the wages of the staff of the factories, have gone up manifold during the past few years resulting in increased cost in the production, installation, maintenance and administration and as such, the enarged rates for telegraph and telephone services have also been reasonably and proportionately increased. The service rate, in spite of all these factors, is not disporportionate to the rates prevailing in the adjacent countries—India, Pakistan and Nepal.

Proper training of staff both inside and outside the country is an important aspect of this Organization. One efficient technical hand here is far better than ten un-trained ones. In developed countries, very few people are engaged in the maintenance of telecommunication services due to introduction of automation. The creation of job opportunity is however, one of our national obligation which requires to be upheld.

In keeping with the country's overall policies, the Bangladesh T & T Board, while doing its best to serve the nation also aspires to provide more efficient telecom. service to the people of Bangladesh and at the same time, keep its commitment in the International field. The Board is, aware of the fact that its valued subscribers expect better and faster service than what is at present provided and has, therefore, taken up a programme to augment its efficiency by better maintenance, modernisation of equipment, training of personnel, etc. within its limited resources. It may, however, be appreciated that single handed nothing can be achieved in this complex, inter-related and inter dependent societies/world and the Bangladesh T & T Board, therefore, expects the assistence consideration and co-operation of all.

CSO: 5500/7083

BRIEFS

BANGLADESH-FRG TELECOM AGREEMENT--Bangladesh and the Federal Republic of Germany on Tuesday signed an agreement under which the FRG Government will provide advisory assistance in the field of telecommunications, reports BSS. The agreement provides assignment of five advisers for planning and maintenance of telephone exchanges and underground cable network and one short-term expert to train selected engineers of the T. & T. Board for special assignment. It also provides for the supply of telecommunication demonstration materials and special telecommunication tools for maintenance of exchanges and traffic engineering. Mr. M. A. Rashid, Secretary, Post & Telecommunication Division, Ministry of Communications and Dr. Baron Von Marschall, FRG Ambassador in Bangladesh signed the agreement. The FRG Government has co-operated with Bangladesh Government in the telecommunication sector since 1972 in its technical co-operation programme. The FRG Government has provided support for the Telcommunication Training Centre in Khulna, for TSS Tongi, for the cable factory in Khulna and spare parts equipment for the T. & T. Board. In total, oer Taka 60 crore of German aid has been spent so far for telecommunication sector. [Text] [Dhaka THE BANGLADESH TIMES in English 21 Dec 83 p 1]

NEW AUTOMATIC EXCHANGE--TANGAIL, Dec 23 (BSS)--The work for converting the present four hundred line cross bar auto telephone exchange into one thousand line elected motor autodailing system was completed here recently. The conversion will fulfil a long-felt demand of the people. It is expected that the exchange will extend nation wide STD facilities to this district. [Text] [Dhaka THE NEW NATION in English 26 Dec 83 p 2]

CSO: 5500/7084

MORE FUNDS NEEDED FOR TELECOM PLAN FULFILLMENT

Bombay THE TIMES OF INDIA in English 22 Dec 83 p 20

[Article by S. Dharmarajan]

[Text] New Delhi, December 21.

The Planning Commission's continued reluctance to include communications in the core sector threatens to upset the P. and T. plans for accelerated expansion of the telecom system in the next decade.

Currect projections place the estimated total requirement of investments at Rs. 42,500 crores in the seventh and eighth plans.

Core Sector

The department is certain that investment on such a massive scale is possible only with additional budgetary support or borrowings.

Outside the core sectors, priority in allocation is not possible. The Planning Commission limits the core sector to agriculture, irrigation and power. For that reason, the commission would want the P and T to raise funds for telecom development and expansion from internal sources.

The Prime Minister's office recently proposed to the Planning Commission to consider the suggestion for inclusion of the P and T and railways in the core sector of the seventh plan. The Sarin committee, which had gone into the working of the telecommunications system, had also proposed high priority for it in planning.

The commission has, however, agreed that telecommunications be given priority in planning and treated on a par with the railways for the purpose of allotment of steel and cement. The communications sector has also been included in the infrastructure for monitoring purposes.

The outlay for the sector in the seventh plan is estimated at Rs. 12,500 crores,--nearly a five-fold increase over that of the current plan. The approved allocation for the sixth plan is Rs. 3,336 crores, against the projected outlay of Rs. 2,950 crores.

Large-scale investment is considered essential to meet, among other things, the estimated total demand for 7.6 million telephone connections by the end of the seventh plan. This will go up by 120 per cent in the eighth plan, for which the projected investment at current prices is estimated at Rs. 30,000 crores.

The department feels justified in making such investment projections in view of the recognition of the role of telecommunications in socio-economic development.

Big-scale investment is also considered crucial because of the decision to switch the telecom network to the electronic system and the related production plans.

The Indian Telephone Industries plans to start production of electronic exchanges at its Manakpur (Gonda) unit in 1985. The exchanges produced there will be installed by 1986. The production schedule envisages phased expansion from 9,000 lines between December, 1984, and March, 1985, to 500,000 lines by 1989-90.

No Differences

The second factory in Bangalore, with CIT-Alcatel collaboration, would ultimately have the same capacity as at Manakpur. It is also expected to start production in two years.

Ministry sources maintain there are absolutely no differences with the department of electronics on the technology to be used by the Indian system.

Whereas the two factories will use French technology, it has been agreed that a national centre will be set up for developing an indigenous technology which will be used in the third factory.

Half-a-million lines will be produced by the indigenously developed system in the third factory to be set up in the second half of the seventh plan. Instruments and equipment will be imported to meet immediate needs.

Meanwhile, the Strowger and crossbar switching equipment will continue to be manufactured at the Bangalore and Rae Bareli units of ITI.

In Indian conditions the Strowger type of electro-mechanical exchanges has been working quite satisfactorily all these years. The exchanges which are nearing the end of their lives or have outlived their utility may be giving slightly lower level performance. The cross-bar system being manufactured at the Rae Bareli factory is the one designed by the Indian crossbar project and its performance was found by an expert committee as comparable with imported crossbar systems.

Phasing out of Strowger from Bangalore is linked with the production build-up of electronic exchanges. Phasing out of the crossbar has not yet been

contemplated. In any case, exchanges produced up to 1990 will be in service at least up to 2015.

At this stage with uncertainty on the scale of investment, the department is in no position to forecast full substitution by the electronic system.

CSO: 5500/7075

COMMUNICATIONS OFFICIAL DISCUSSES TELECOM PLANS

New Dehli PATRIOT in English 25 Dec 83 p 5

[Text]

In the seventh Plan, telecommunications may be taken up as a priority item in the core sector.

A proposal to this effect is under the consideration of the Planning Commission, Minister of State for Communications V N Gadgil told the Parliamentary Consultative Committee of his Ministry on Friday.

The Ministry, he said was contemplating setting up of an extra-departmental committee to review the wage structure and service conditions of extra-departmental agents of Posts and Telegraphs.

He told the MPs attached to the committee that a wage settlement had been signed between the Indian Telephone Industries and the workers' unions in Bangalore.

The memorandum of understanding of the agreement provides for revision of payscales, dearness allowance, conveyance allowance and other facilities of the telephone industries employees. The agreement will be valid for four years from 31 December this year.

A similar agreement had been signed between the management of other public sector Hindustan Teleprinters Limited of Madras and its recognised trade unions recently. The agreement for revision of payscales and other facilities will remain in force for four years from 1 September last year.

Replying to a question from Mr Sushil Bhattacharya if there had been piracy in the postal services, Mr Gadgil said there had been certain agencies operating clandestine postal services. Such cases, whenever unearthed, were sent to the police after departmental enquiries.

The Communications Ministry had a proposal to amend the relevant sections of the Indian Postal Offices Act, 1898 to provide for more stringent penalties for violation of the right of monopoly of carrying letters.

Mr Gadgil said that the government had approved a project for augmenting the present manufacturing capacity of 10,000 equivalent lines per annum of small electronic exchanges of the Palghat unit of the Indian Telephone Industries (ITI) to 1.5 lakh equivalent lines per annum through manufacture of electronic trunk automatic exchanges, private automatic exchanges and rural automatic exchanges at a capital cost of Rs 33.72 crores.

Supplementary agreements were signed recently between ITI and Messrs. CIT-Alcatel for (I) technical and (II) supply of machinery equipment, sub-assemblies, components and raw-materials for manufacture of electronic digital trunk automatic exchanges.

The period of these supplementary agreements is seven years from their effective date. The production will start in 1984-85 and the ultimate production capacity for digital trunk automatic exchange lines (60,000 equivalent lines) would be reached by 1988-89, he said.

Besides Minister of State for Parliamentary Affairs, Mr Kalpnath Rai, the meeting was attended by Mr N C Parashar, Mr S Bhattacharya, Mr T Damodar Reddy, Mr Dipendrubhusan Ghosh and Mr Sharief-ud-din Shariq MPs.

CSO: 5500/7077

INSAT-1B SAID TO BE IN 'SUBSTANTIAL USE'

BK161622 Madras THE HINDU in English 28 Dec 83 p 7

[Text] Banglalore, 27 December--The triple services of India's multipurpose satellite INSAT-1B have been made use of "substantially" by the user agencies since it was declared fully operational on 15 October according to ISRO [Indian Space Research Organization] sources.

The spacecraft combines the three functions of communication, meterology and television.

All 30 fixed fixed earth telecom stations, including two of the Oil and Natural Gas Commission have switched over to INSAT-1B, which will complete four months of its orbit by the end of this month. The traffic is being gradually built up. Of the first year's quota of connecting 2000 telecom circuits to the satellite, over 450 have been commissioned and are in commercial operation. In addition, the P and T has pressed into service the transportable earth stations.

Ten images daily: The satellite is beaming 10 full earth images every day in both the visible and infra-red bands to meet the requirements of the India Meteorological Department [IMD]. The satellite is in a position to beam extra pictures if there is need.

The data from the pictures like sea-surface temperatures are at present being processed by the IMD. It is proposed to set up 20 secondary data utilisation centers at various places. Ten such centers, set up already, are going through initial test and observation.

The first batch of eight data collection platforms [DCP] is working with INSAT-1B. The second lot of DCPS will be installed in February next. The number of DCPS will be raised to 100 in a phased manner by the third quarter of 1985 at the rate of four a month.

Disaster warning system: One hundred sites have been selected in cyclone-prone coastal Andhra Pradesh and Tamil Nadu for locating the disaster warning systems. They will be installed next year.

The two nationwide TV transponders of the satellite have been handed over to Doordarshan and are being used for uplinks from Delhi. A majority of the 44 TV

transmitters in the country are dependent now on satellite feed for local transmission. Out of these, 35 have been hooked to INSAT-1B.

Of the first lot of 800 direct reception sets to be set up in Andhra Pradesh and Orissa, 520 are already deployed and operational. A total of 1,200 sets are to be set up in these states by Sixth Plan end.

Radio network: All India Radio has brought in 28 of the 94 stations under the INSAT-1B network. Though the satellite has a five-channel capability it is being limited only to two channels originating from Delhi. The full five channel capability will be utilised by 1984 end.

The satellite's life, estimated at 7 years' may be even longer in view of the "comfortable fuel" position.

A small particle: The 20-cm unidentified object which is supposed to have hit INSAT-1B soon after its deployment on 31 August, could have been only a small particle. According to preliminary feedback received from the review team of the National Aeronautics and Space Administration (NASA), U.S., the object's dimension might have been magnified due to optical illusion. This could have been caused by the way the video camera aboard the space shuttle Challenger, which deployed the satellite, had been mounted. The particle could have also flashed by in particular angle causing it to be seen as a bigger object.

A final report of the NASA review team, consisting of Department of Space, Ford Aerospace and Macdonnel Doughlas personnel is still awaited.

The team has been constituted to analyse all on-orbit films and video tapes on INSAT-1B deployment and also plan a detailed inspection of Challenger's cargo bay.

CSO: 5500/4711

POLICY ON PRIVATE SECTOR PROCUREMENT TOLD

Bombay THE TIMES OF INDIA in English 18 Dec 83 p 9

[Text] Bangalore, December 17.

The Union government is open to discussions with the private sector on how to increase its contribution of components and peripherals in the telephone communications sector, Mr. V. N. Gadgil, Union minister of state for communications, said here today.

He rejected the idea of competition between the public and private sectors, but added that there need be no impression that the government was adopting a doctrinaire approach. After all, he pointed out, the national policy was one of mixed economy and everything had to be done within the framework of the industrial policy resolution of 1948 as amended in 1956.

Mr. Gadgil, who was inaugurating a symposium on telecommunications and its basic infrastructure, organised by the Karnataka chamber of commerce and industry and Bangalore Telephones, said the government had licenced private units to manufacture cables.

State electronics corporations in four states had been licensed to make telephone instruments along with the Indian Telephone Industry in Bangalore, so that there could be "socialist competition" among public sector enterprises.

At present, 30 per cent of components in the switching or exchange sector were being made by the private sector and he was prepared for discussions to enhance it, Mr. Gadgil said.

He also stated that the government wanted to update communications technology, but did not believe in the "philosophy of the latest toys" as in advanced countries. He wanted Indian scientists and technologists to develop technology that was suited to a developing country like India.

While conceding that India lagged behind in the areas of telephones, maintenance, training and finance, he said the "middle class belief" that the communications systems were perfect in Western countries was exaggerated. He quoted instances of technical and human failures in the U.S. and the U.K. and the adverse press comment such failures had evoked. During the Falklands war, messages meant for the British foreign affairs ministry had been delivered to a plastic factory.

CSO: 5500/7074

BRIEFS

REMOTE SENSING CENTER--Hyderabad, Dec 23 (PTI)--A regional centre to cater to remote sensing needs of north India has been set up by the department of space at Dehradun. The National Remote Sensing Agency (NRSA) will man the new centre, according to NRSA sources here. When completed, the centre will have all the facilities needed to analyse data collected from the Indian remote sensing satellite (IRS) to be launched in 1985-86. The centre has been housed in the Indian Institute of Remote Sensing (IIRS), Dehradun of the NRSA. It will have a wide range of visual interpretation aids. The centre has been started under the National Natural Resources Management Systems (NNRMS) committee recommendation that five such centres should be set up in the country. The centre will play a vital role in resources management of north India. [Text] [New Delhi PATRIOT in English 24 Dec 83 p 5]

ARMY TRUNK EXCHANGE--New Delhi, Jan. 3. A modern and sophisticated military trunk exchange was today inaugurated at the Sena Bhawan here by the Chief of the Army Staff, Gen. A. S. Vaidya. The exchange has a capacity for 42 special trunk circuits and provides vital telecommunications to Defence headquarters throughout the country and some places abroad. The exchange is practically fault-free and has double the number of junctions than in the old exchange in South Block.--UNI [Text] [Madras THE HINDU in English 4 Jan 84 p 6]

CSO: 5500/7076/7080

SUPARCO STUDYING FEASIBILITY OF COMMUNICATIONS SATELLITE

Karachi MORNING NEWS in English 12 Jan 84 p 5

[Text] LAHORE, Jan. 11--Pakistan has attained the capacity to manufacture rockets which can go up to an height of 500 kilometres and be used for scientific research programms. The rockets have been produced by the Space and Upper Atmosphere Research Commission (SUPARCO), which can also produced them on commercial scale, a SUPARCO official told PPI here yesterday.

He said the SUPARCO has set up a full-fledged rocket production plant which has the facilities to manufacture complete rocket engines and their propellants. He confirmed that a feasibility study was being carried out for a Pakistan National Communication Satellite (PAKSAT) project and that it would be launched in 1987.

This satellite will be used for domestic telecommunications and television and radio broadcasting. Transmission of educational programmes to rural areas through this satellite will help promote the adult literacy programme of the Government.

The Government had set up a committee comprising representatives of potential user agencies, like the Pakistan Television Corporation, Pakistan Broadcasting Corporation and T and T Department to identify areas of circuit applications and requirements.

Work has also been undertaken to develop a direct broadcasting satellite receiver, comprising a receive-only set up He said the SUPARCO had drawn a ten-year plan with four priority areas.

A chain of ground stations would be set up in the country under this plan.

These stations will collect scientific data about weather, earth resources and air pollution.

He said that the SUPARCO would enhance its cooperation with research and development organisations, industries and universities to accelerate the pace of research in the country.

The SUPARCO will also provide research facilities and scholarships for billiant science students.

CSO: 5500/4710

REQUEST FOR SATELLITE POSITIONS SUBMITTED

GF201244 Karachi DAWN in English 16 Jan 84 p 8

[Text] Karachi, 15 Jan--A Pakistani application for reservation of two positions in an equatorial orbital position 23,000 miles above the earth's surface for its proposed communications satellite has been circulated for information among all the member-countries of the Geneva-based International Telecommunications Union (ITU).

According to official sources, the application was sent last year to the Internation Frequency Registration Board (IFRB), which is a branch of the ITU and is responsible for allocating frequencies to both ground-based radio stations and orbiting communications satellites.

On receipt of the application, the IFRB has notified all the ITU member states of the Pakistani request for reservation of two slots in what is known in technical parlance as "the geo-stationary orbit" which is preferable for a communications satellite since in that position it remains fixed above a particular point on the earth's surface, thus making possible a permanent two-way communications link.

According to the tentative schedule, the Pakistani communications satellite will be placed in orbit in the latter half of this decade, and will be followed some time later by a "back-up" satellite.

Data relating to the broadcast bands to be used by the proposed satellite, frequencies, area coverage, type of services to be provided, power densities, etc, have been provided to the IFRB, in accordance with its requirements so that it can be worked out if they will adversely affect any other orbiting satellite.

The IFRB has asked for some clarification about this data, and these will be forwarded soon by the Pakistan Government.

The proposed frequency range of the communications satellite will be 14-14.5 gegga hertz (GHZ), which is equivalent to one thousand million cycles and thus falls in the ultra-high frequency (UHF) category.

Medium-wave radio transmissions take place in the one thousand cycle category--kilo hertz of KHZ--while short waves are located in the one million cycle category--1.6 mega hertz or MHZ.

If none of the ITU member states object to reservation of the two geo-stationary orbital positions requested by Pakistan (within a specified period as laid down in the IFRB regulations) they will be allocated to Pakistan.

However, if any objections are raised they have to be based on valid grounds, and Pakistan will be asked by the IFRB to reply to them and if this refutation is satisfactory according to the IFRB rules, the Pakistani application will go through.

Advance action in reserving the required geo-stationary orbital positions for the Pakistani communications satellite is essential because such slots are limited in number, and many of them have already been allocated to other countries which have such satellites in orbit or plan to place them aloft in the future.

CSO: 5500/4713

BRIEFS

NEW RADIO STATION IN BALUCHISTAN--Quetta, 16 Jan--Construction work on the 300 kilowatt medium wave transmitter and the broadcasting house of Pakistan Broadcasting Corporation [PBC] is underway at Khuzdar in Baluchistan. The total cost of the project is Rs 53.97 million including foreign exchange component of Rs 15.88 million. At present a 250 watt radio station is working in Khuzdar with a single studio. The listening range of this station is only 20 miles. Work on the new project was taken in hand in June 1982. The construction is expected to be completed in September this year and the installation of equipment by June 1985. Most of the equipment, including mast, is being manufactured by the PBC equipment production unit. The new station will have four studios and four booths besides office accommodation. With the commissioning of the Khuzdar high power radio station, its range would be increased to about 200 miles. The standard of its programmes will be further improved besides providing more jobs to the people of the area.--APP [Text] [GF301535 Rawalpindi PAKISTAN TIMES in English 17 Jan 84 p 9]

CSO: 5500/4713

TELECOMMUNICATIONS IN NIGER: A QUANTUM LEAP

Dakar AFRICA in French No 156, Dec 83 pp 105-110

[Text] In Niger, domestic telecommunications are part, with the Post Office, of the Office of Postal and Telecommunications (OPT). International telecommunications are managed by the Niger International Telecommunications Company STIN); however, rate agreements on all telecommunications are handled by OPT. Receipts due Niger from international telecommunications are divided between OPT and STIN according to a distribution agreement reached between the two agencies.

More than 1,000 people work in telecommunications, two thirds of them as support personnel.

Domestic telecommunications and the Post Office share the same budget.

Telephone subscribers in the seven départemental capitals and in the mining town of Arlit have direct access to the national and international automatic system.

In the following pages, we shall discuss the major events in the area of telecommunications since independence, and then we shall have a few words to say about the outlook for the future. Lastly, we shall essay to demonstrate the rate of return on the telecommunications investments.

Plant

When we speak of a country's telecommunications system, we understand all the means at the country's disposal for transmitting its telephone, telegraph, telex, or other kinds of messages such as data, images, etc.

Among those means, are:

-- Urban systems, which are the telephone or telex exchanges using underground or overhead cable systems, plus subscriber equipment;

-- equipment for interurban service which may be, according to circumstances, overhead lines, radio links, Herz bands, earth stations, or cables connecting the main exchanges with each other.

The number of telephones in service in Niger as of the end of 1982 was 10,344, which cincluded 7,000 major users, 93 percent of them with automatic service, and the rest using standard dial phones with local switchboards.

The telex service, inaugurated in 1967, now serves 283 subscribers on a fully automated system.

A gentex service, which provides connections among eight public telephone centers and the Niamey postal checking office, came on line in the first quarter of 1982, at just about the same time as the international transit telephone exchange in Niamey.

Telephone Exchanges: telex and Gentex

Until 1962, all working telephone exchanges in Niger used manually operated telephones connected with a local or central switchboard. Since that date, however, all new acquisitions have been of the electromechanical Crossbar type.

The first automated exchange installed in Niger was opened at Niamey in 1962, with an initial capacity of 400 lines, since brought up to capacity (2,000 lines) by subsequent incremental expansion. Its saturation in 1973 necessitated activation in August 1974 of a new and far more advanced exchange, offering the capacity to handle interurban circuits automatically. This exchange, with its initial capacity of 800 lines, was expanded to 2,000 lines in 1976, then to 4,000 lines in 1981, so as to meet demand through 1985.

In addition, other exchanges -- most of them handling more than 100 lines, were installed, one after the other, in:

a. Agadez, im 1962, with initial capacity of 100 lines, replaced in 1978 by a new 200-line exchange, now saturated;

b. Zinder in 1965, initial capacity 200 lines, expanded to 400 lines, then replaced in 1982 by an 800-line exchange adequate to meet demand until 1985;

c. Maradi in 1967, initial capacity 200 lines, replaced in 1972 by another with initial capacity of 400 lines and ideally suited to an automatic interurban operation; it was expanded in 1981 by 400 lines, bringing its capacity to 800 lines;

d. Tahoua in 1969, initial capacity 100 lines, expanded to 200 lines in 1977, replaced by a 400-line exchange in 1982;

e. Tillabéry in 1970, initial capacity 30 lines, replaced by a 60-line exchange in 1978, which is now saturated;

f. Madaoua in 1971, initial capacity 30 lines, replaced in 1977 by another 60-line exchange which is still in service;

g. Arlit in 1972, initial capacity 100 lines, replaced by a 200-line exchange in 1981;

h. Dosso in 1972, initial capacity of 100 lines, replaced in 1982 with a 450-line exchange;

i. Filingué in 1976, initial capacity 30 lines, now saturated;

j. Diffa in 1981, initial capacity 400 lines, which will be adequate to demand until 1985;

k. Konni in 1982, initial capacity 200 lines;

l. Doutchi in 1982, capacity 100 lines;

m. Tessaoua in 1982, capacity 100 lines.

All other localities with telephone service have manual equipment with local switchboards with a capacity ranging from two (in Famalé) to 100 (in Ngnigmi).

Telex facilities consisted of a single Crossbar-type automatic switching installation at Niamey, with an initial capacity of 100 addresses, which was raised to 200 in 1975. This exchange was replaced in 1981 with an electronic exchange with 720 addresses.

All telex subscribers (in Niamey as well as in the interior) are directly linked to this totally automated exchange for domestic as well as international communications.

As already noted, the old telex exchange was set up in the Gentex exchange in Niamey.

Long Lines

Until 1965, telephone and telegraph (Morse) services were provided over decimetric radio links (A3 and A1) provided on a time-available basis, and by an overhead line with ground return (portion of the Dakar-Bamako-Fort-Lamy colonial penetratration line).

In handling its major domestic connections Niger today has permanent circuits of good quality, some via microwave links, some by overhead cable, and -- since 1981 -- some by satellite. Some of these connections are backed up by decimetric-wave radio communications.

In secondary contacts, Niger has physical circuits on overhead lines, low-capacity microwave links, and time-available radio links.

Overhead Lines and Carrier Currents

The first major transmission facility -- in terms of size and scope -- came into service in 1900 between Niamey and Zinder in the form of a two-cable overhead line strung on wood and metal poles. This facility was subsequently extended to the west as far as Ayorou and to the east as far as Ngnigni, thereby establishing what was called the Ngnigmi-Ayorous axis," stretching over across a distance of almost 1,500 kilometers.

Spur lines were added shortly thereafter: Tahoua-Konni, Madaoua-Bouza, Maradi-Madoumpa, Tahéta-Matanèye, Cothèye-Téra, and Niamey-Filingué-Loga (1976).

Other overhead lines have since been strung: Tahoua-Keita (1975), Niamey-Torodi, Gaya-Dioundiou (1983), and Baleyara-Fandou (1982).

Carrier current equipment for these lines was added, beginning in 1966, for capacities ranging from one to three, and, beginning in 1975, for capacities in excess of 12 chanels, so as to handle manual telephone and telegraph service. As for telex equipment on major arteries, it was introduced over the 1968-1970 intercal (harmonic telegraphy equipment).

Microwave Links

The first microwave links put into service in Niger linked Niamey and Dosso in 1973 (24 telephone circuits in the 400 MHz band). This 24-circuit hers band was used until 1976. It was enhanced with carrier current equipment (15 circuits) to serve the Niamey-Zinder corridor.

As early as 1973, however, came the idea of twinning two major circuit microwave links: the one for educational television, which was seeking to expand its system to reach all areas of the country, and the other for OPT, which wanted to modernize its entire telecommunications system. And that was the genesis of the "HB-TV Joint Niamey-Zinder Project." That project was completed in four phases over a period of 7 years (1973-1980):

-- the Niamey terminal station (known as PK5) with a 200-meter tower, a 10-kw TV transmitter, and a studio (PK 5) link.

-- The Niamey-Dosso HB section on the 75-Hz band including: 1 channel with 600 telephone circuits, 1 television channel, and one emergency channel with telephone priority. At this phase, we built a 200-meter tower and a 10-kw TV transmitter at Dosso.

-- the Dosso-Zinder section: this phase involved only telecommunications requirements to bring service to the major towns along the Dosso-Zinder exis, to wit: Doutchi, Konni, Madaoua, Maradi, Tessaoua, and Zinder, which meant seven demodulation stations and five relay stations.

Joint Plan No 1 cost 4,047,034.256 francs CFA, before taxes

In 1978 the old Niamey-Dosso link (24 circuits) was shifted to the Konni-Tahoua spur to provide telephone communications between Tahoua and Niamey and other localities.

A project financed by the International Development Association (IDA) in 1980 added three small-capacity (5-circuit) microwave links between Banibangou-Oualounu, Maradi-Dakoro, and Zinder-Tanout.

These localities had previously been provided with decimetric radio service.

In the second joint project between OPT and the Niger Radio -TV Office (ORTN), known as the Joint Project for Extending Niger's Telecommunications and Television, we completed a large-capacity (600 telephone and television channels) in 1981 between Agadez and Arlit.

Niger thus now has 2,018 kilometers of microwave links.

Radio Links

Until 1972, our radio broadcasting facilities relied solely on decimetric radiophony plus physical support from overhead lines.

Today, these radio links are used only as emergency backup in inter-departement communications.

Satellite Links

Since April 1981 we have had a national satellite communications system of our own.

Like the Agadez-Arlit HB link, this system is part of the Joint Project for Extending Niger's Telecommunications and Television.

It consists of:

-- one master satellite station at Niamey, 11.80 meters in diameter;

-- one satellite station at Agadez, 11.80 meters in diameter,

-- one satellite station at Diffa, 11.80 meters in diameter.

All these stations can transmit and receive both telephone and television signals.

International Links

Until 1977, all international connections with Niger were handled exclusively over decimetric radio waves.

In 1977, Niger got its first earth station at Gondel; it is a B facility (13 meters in diameter) oriented towards the Indian Ocean. Initially, this station was equipped with 12 telephone circuits, two of them operated (Algeria) and a TV reception channel which let Niger watch the World Soccer Championships in Argentina.

Since then, the station's capacity has been upgraded with an extension of 40 telephone circuits and a television transmitter for beaming programs abroad.

Among its viewers are France, Algeria, and several Asian countries.

In May 1981, a new A-rated ground station (32 meters in diameter) oriented toward the Atlantic Ocean as part of the same project (PMETT), came on line. Capabilities: telephone and telex; television (transmitting and receiving). Users: Canada, Ivory Coast, France, FRG, USA, and Senegal.

Since 1982, we have had service, as part of PANAFTEL in the form of HB links between Niamey and Cotonou and Niamey and Ouaga for regional African communications.

Outlook for the Future

The particularly trying economic situation experienced currenrly by every nation in the world is not calculated to encourage dreams of big plans for the future.

Even so, as part of the national interim consolidation program (PIC), some programs will be undertaken and certainly completed in 1984 and 1985. The prime objective of these plans is to continue with the work of breaking out of the country's internal and external isolation by setting up new domestic and international communications.

Another goal is to achieve greater profitability for the telecommunications system by increasing capacity for new subscribers. This increase will be achieved by by extending the reach of exchange equipment in some cases and by creating or replacing and expanding urban systems.

Among the plans under serious consideration, we might cite:

-- expansion of the Niamey and interior systems;

-- An agreement in principle has already been reached with the West African Development Bank (WADB) and France's Central Fund for Economic Cooperation (CCCE) for financing to cover 8,000 lines (delivery of equipment and installation work).

-- Expanding the Agadez exchange.

This operation will expand the Agadez exchange capacity from 250 to 650 lines. The financing plan has already been approved under phase 2 of the PMETT (CCCE).

-- installation of automatic telephone switching and urban systems at Bimi-N'Konni, Datchi, and Tessaoua.

The aim of this operation is to provide access to the national and international automatic switching system for these three arrondissement capitals.

Service for N'gnigmi

A small telephone exchange and a small HB system of low capacity, linking N'gnigmi with Diffa.

-- HB communications between Konni and Tahoua
This operation calls for installing large-capacity (960 vhannels) HB telephone and television links to enable this départemental capital to move to the same footing as its six fellow-capitals, insofar as telephone and TV transmission capacity is concerned. Financing may be obtained under phase 2 of the PMETT.

-- Regional project for Liptako-Gourma. This operation is aimed at tying the two main centers of mining and/or tourist interest in the Liptako-Gourma region into the national systems of the three states involved (Upper Volta, Mali, and Niger).

Studies were begun in 1976 and as of now, all supply contracts have been awarded.

PANAFTEL Links

-- Maradi-Katsina

Large-capacity HB for telephone and television between Maradi in Niger and Katsina in Nigeria. This hookup will come into being under the aegis of the Joint Niger-Nigeria Cooperation Commission. The winner in competitive bidding on the contract has just been chosen.

-- Birni-N'Konni - Sokoto

Small-capacity HB for telephone service between Konni in Niger and Sokoto in Nigeria. Sponsoring the connection is the Economic Community of West African States (ECOWAS). Financing will come from a loan by the Niger ECOWAS office.

Return on Investments

Profitability of OPT services has been pegged in an ongoing study conducted by the Roland Olivier Studio (ROC). Profitability varies according to sector (postal and financial services, domestic telecommunications, international telecommunications, and geographical zone).

According to the ROC report, profits will depend, in the first place, upon rate structures and the way revenues from international activity is split between OPT and STIN; in the second place, they will depend on their customers' solvency and the promptness with which they pay their bills.

By that last clause, they mean the sum total of unpaid telephone bills, particularly those of the government (civil service agencies).

One of the first conclusions contained in the study is this: It is true that investments in telecommunications loom very large just now, involving huge outlays (28.5 billion CFA); even so, given a proper distribution of earnings between OPT and STIN, plus a reasonable budget appropriation for government agencies' telephone and telex bills, the operation is sure to be in the black before very long.

6182

CSO: 5550/38

TELECOMMUNICATIONS LINK WITH ZAIRE TO BE RE-ESTABLISHED

[Lusaka TIMES OF ZAMBIA in English 21 Jan 84 p 5

[Excerpt] ZAMBIA and Zaire are going to re-establish telecommunications services which were suspended four years ago.

Director of telecommunications, Mr Swatulani Munthali who led the Zambian delegation said at the opening of the talks in Ndola yesterday that the link between the two countries would enhance economic and social development.

Mr Munthali said the service once established would facilitate communication between the Eastern and Southern regions with the West African region to further the goals of the Organisation of African Unity (OAU) in the field of communications.

The telecommunications link was suspended in 1978 because the equipment which was installed was not commercially acceptable.

The other reason was that African Development Bank (ADB) which was supposed to finance it became reluctant after it was given a report which suggested that the project was unprofitable.

A representative from ADB who attended the talks Mr Francis Batola said a fresh report recommending the viability of the project had been submitted and the bank was keen to invest in it.

Mr Munthali said it was the wish of President Kaunda and Mobutu Sese Seko to see that good communications between the two neighbouring countries existed.

It was worrying to note that Zambia and Zaire despite having been independent for nearly 20 and 24 years respectively and having a long common border still lacked any direct telecommunication facilities.

Mr Munthali said the need for a link between Zambia and Zaire has been recognised.

"As telecommunications experts we have failed our governments in that their decisions to improve telecommunications between the two countries, made as early as 1971 and repeated at subsequent heads of state summits have not been implemented.

"These may appear to be highly critical words about ourselves but are hard facts which we have to face."

CSO: 5500/40

BRIEFS

SIEMENS ELECTRONICS TO TURKEY--The Turkish PTT has awarded Siemens a contract to supply electronic switching and transmission systems for text and data communication. The wide-coverage network configuration, employing all-digital technology, will offer the telex subscriber enhanced facilities and permit new text and data services to be introduced in national and international traffic. The contract--total value: 25 million DM--includes seven exchanges implemented in Siemens system EDX technology as network nodes for telex, teltex and synchronous data switching, and also for state-of-the-art data transmission equipment operating at low, medium and high transmission speeds. Commissioning of the first project phase is envisaged for the first half of 1984. [Text] [Munich DATA REPORT in English No 4, 1983 p 27]

CSO: 5500/2589

FRG AWARDS CONTRACTS FOR INTEGRATED DIGITAL NETWORK

Duesseldorf VDI NACHRICHTEN in German 23 Dec 83 p 1

[Article: "FRG's Own Radio Satellite"]

> [Text] The German Federal Postal Service (DBP) commissioned an industry consortium to develop and build three satellites--two operational and one spare--and 34 ground radio stations. With these facilities, new digital telecommunication services for commercial applications such as fast text and data transmission and teleconferences will be realized. Additional tasks are the transmission of TV programs for broad-band cable networks and the maintenance of telecommunications with Berlin.

In June 1987, the first German national telecommunications satellite "Copernicus" will be placed in a geostationary orbit with an Ariane rocket. The second satellite will follow in March 1988. Initially, the European ECS telecommunication satellites as well as the French telecommunication satellites will be used for preparatory transmission testing. However, the capacities of these two systems, which are also available to the DBP for operational use since the FRG is involved with the ECS, will no longer be able to satisfy the demand for communication services within the foreseeable future. For this reason and for reasons of independence, it is becoming more and more important for larger countries to establish a national capacity--not to mention the fact that speed is of the essence if one is still to find a place in the densely populated 36,000-km geostationary orbit.

The German Telecommunication Satellite System (DFS) will consist of the 2 operational and 1 spare satellites--each with 12 transponder channels--plus a total of 34 ground radio stations. It will offer a wide array of services. Among such services is the new digital telecommunication service for commercial communication. In preparation for this service, several companies had formed a "User Group for Fast Data Transmission" as early as March 1981. The group has been conducting experiments with the aid of small ground radio stations and the OTS experimental satellites.

For these services of fast text and data transmission (with high bit rates from 64 kbit/s to 2 Mbit/s) and video conferences, 30 small ground radio stations in the 12 to 14 GHz region will make up the ground segment of the system. For point-to-point connections, including additional telephone and data channels between the FRG proper and West Berlin, two large ground radio stations operating respectively in the 11 to 14 GHz and 20 GHz ranges will be built. Finally, the DFS will relay 5 to 7 TV programs to local broadband cable networks, depending on the coverage provided at the time.

After a nearly two-year advanced research phase, Postal Minister Dr Christian Schwarz-Schilling has awarded a German industry consortium the contract for a German telecommunication satellite system.

The project will be headed by Siemens; other members include ANT Communications Engineering, MBB/ERNO and Standard Elektrik Lorenz.

The DBP contract amounting to DM 815 million is viewed in the ministry as a one-time opportunity for the participating companies to start up and demonstrate their capabilities in the area of the most modern space and telecommunication technologies so that they will later be able to fully and independently compete in the international market. For future satellite sales, a marketing company GESAT (German Satellite) has been formed.

9160
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REVIEW OF FRENCH CGE-THOMSON RESTRUCTURING AGREEMENTS

Paris ZERO UN INFORMATIQUE in French Jan 84 pp 34-36

[Article: "A French Garden"]

[Text] "We are seeing the recomposition of the French industrial landscape," Mr Louis Mexandeau said recently, referring to the restructuring projects being negotiated between Thomson and the CGE [General Electric Company].

Competing with groups like those of Honeywell and Ericsson or, perhaps, AT&T and Olivetti, the minister says, "We are obliged to seek out and to form vaster groupings, on a European scale, in the electronics sectors. The PTT [Posts, Telephone and Telecommunications] would help out with any form of joint action on the basis of products, activities or agreements between governments to set up a European pole to meet American or Japanese competition."

Preliminary talks are taking place between the two large French corporations of Thomson and the CGE in the expectation that initial discussions between European partners will begin. This operation is being presented as "the most important industrial operation in Francois Mitterrand's 7-year term"; it should lead to an "exchange" of branches of activity between the two groups by the target date of 1 January 1987, with Thomson taking over all military, general public and components activities and ceding to the CGE everything concerning civilian communications.

Less than 2 years after assuming the presidency of Thomson, Alain Gomez reached an opinion about the lackluster situation: loss-producing centers had to be cut away, the burgeoning number of specialties being pursued had to be trimmed, and emphasis had to be placed on the strong points.

The CGE is the top student in the class (Fr 638 million net consolidated in 1982) and will, at the urging of Georges Pebereau, proceed to do a few "liftings" (shifting BTP [expansion unknown] activity to Saint-Gobain and ceding Bull to Transac), and strengthen itself in cables and telecommunications engineering (by taking over a majority interest in SESA [expansion unknown] in order to project the image it has chosen for itself: the foremost national company in communications and nuclear electronics.

Thomson Telecommunications is the name of the new subsidiary formed with the communications branch of Thomson-CSF. The CGE will reportedly acquire a 12 percent capital interest in this branch from the outset. This share will eventually reach 60 percent, and the merger with CIT [Industrial Telephone Company]-Alcatel is supposed to take place before the end of 1986.

The Pieces of the Pie

However, the agreement in principle made by the public authorities is hedged by a certain number of conditions, among which are concertation with personnel concerning the effects on level of employment, the continuation of support for two lines of products (including research and development), and starting negotiations with Bull on the compatibility of French data-processing and telecommunications products.

Besides all these subsidiaries linked to Thomson-CSF Telephone, the group headed by Alain Gomez is bringing to the new "TT" (Thomson Telecommunications) company all of its activities in office automation and data processing, including Answare, TITN, AEA and Syseca but not CIMSA, CAMECA and Saphymo [expansions unknown].

Private and Public Funds

Financing will take place in two phases. In the first phase, Thomson will retain a 40 percent share in TT, and the national government will have a 48 percent capital share (12 percent for the CGE); this implies a public capital contribution estimated at about Fr 720 million.

At the same time, the CGE will create a holding company in which Thomson will have a 16 percent share (in exchange for 12 percent in TT). This holding company will get 50.1 percent of CIT-Alcatel's capital.

In the second stage, a joint research company is planned for CIT-Alcatel (51 percent) and TT (49 percent). By 1 January 1987 at the latest, CIT and TT would simply merge in a single legal entity whose capital would be held jointly, 60 percent by the CGE and 40 percent by Thomson.

In addition to the Fr 720 million contribution to TT, the government is being asked to make a participatory loan of Fr 250 million. At the planned deadline of 1 January 1987, once the merger of CIT and TT is accomplished, the government will return its TT shares to the CGE, which will proceed to make a special stock issue in exchange.

This is a matter that involves the government and nationalized groups, and we are talking about the small sum of a billion extra francs in public money. Planting the "French garden" of electronics cannot be done for free, but we can expect magnificent flowers from the gardeners.

8782
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DOMESTIC FIRM WINS COMPETITION TO BUILD DIGITAL EXCHANGES

Oslo AFTENPOSTEN in Norwegian 20 Dec 83 p 37

[Article by Jenny Lippestad: "For This STK (Standard Telefon og Kabelfabrik [Standard Telephone and Cable Factory]) Won the Big Contract"]

[Excerpts] Quality and a good working environment are chief concerns at Standard Telefon og Kabelfabrik; for this STK won the competition for supplying digital telephone exchanges to the Telecommunications Agency for several hundred million kroner.

The last two or three years the working environment at STK has been examined thoroughly and weak points have been strenghthened.

No personnel were sent packing.

But the contract must be complied with--the management and personnel administration, technical knowledge and administration must still be tip-top.

Training and advancement on the job have become a matter of course, and the updating of knowledge an investment.

Theories have become practice--employees are getting responsibility, duties and challenges.

But much must become still better.

Employees must have elbow room and meet challenges! Personnel must be used in the proper manner!

This, among other things, was said by Standard Telefon og Kabelfabrik (STK) Administrative Director Fredrik Thoresen in an important interview this summer, when the "contract of the century" was secured--the supplying of digital central exchanges to the Telecommunications Agency. What does the STK chief mean by these statements? Why is that so important which many--himself included--would call "elementary" in personnel administration?

We asked him to expand on both this and regards he had for the Department of Education, which he thinks for too long has been "lulled by the idea that an

effort has no meaning." Thoresen emphasized that an effort is something which must be encouraged.

STK's top leader believes, for one thing, that "we need a new industry policy and a new personnel policy."

Not Very Honorable Records

"Over the last 5 to 10 years Norwegian industry and business have gotten new problems which it does not appear we are prepared to come to grips with. We are setting not very honorable records in absenteeism and low productivity and our competitiveness has been declining," he says, and believes that the reason for this resides in the fact that we "slowly and almost unnoticeably" have abandoned old methods and principles which had been accepted both by employers and employees: methods in which discipline, leadership with authority and the demand for achievement were a matter of course. We have not found any substitute for this, Thoresen says.

"When we at the same time are told that we are one of the world's richest countries--that the oil will last for 100 years--then it is not so odd that Norwegians do not feel that it is necessary to make a top effort. We boast rightfully about a society in which equality has reached further than in most other countries, but where is the motivation for an effort in creative work--to accomplish something? The motivation is often totally lacking," the STK chief says.

Therefore, he believes, a completely new personnel policy is required.

"We neither can nor want to turn the clock back, but there is a single word which has the same value today as before and which is capable of creating motivation, prosperity and an effort. This word is 'responsibility'," Thoresen says.

A Disservice

He thinks that we have done the generation growing up a disservice by taking the sense of responsibility and demand for achievement out of school--and out of business. Thoresen wants to have this "law" on the wall in all classrooms: "A competitive industry is a condition for employment and growth of prosperity."

[Question] But STK won the competition for the telecommunications contract; here at the firm motivation is obviously OK; you also emphasized in the interview this summer that employees must have elbow room and be used in the proper manner; STK must have found the "substitute" for "the old methods," must it not?

[Answer] "In small businesses, of which we have many spread over the country, the duties of the job for the individual and what the company stands for are clearly and precisely defined. The individual is noticed, both when he is on the job and even more so when he is not there. Having shared responsibility

for the result has shown that the desire to contribute is found in great quantity, and results one can be proud of, in concerns where it is has been possible to have these forces unleashed. This should be elementary," Thoresen says.

New Philosophy

Standard's administrative director is an advocate of a new organization philosophy which stands totally apart from the old principle whereby the individual is a link in a production process, a kind of continuation of Chaplin's "Modern Times," where everyone has a job but is unfamiliar with what takes place before and after and is completely without knowledge of his affect on the final result.

Norwegian industry is, in Thoresen's opinion, poorly prepared to compete in the exports market in products within high technology. Norwegian industry is heavily raw materials based--something which has become strengthened with the oil and gas. This makes industry very vulnerable to fluctuations in the economy, he stresses, but also emphasizes that we need both industries--both the high-technology and that based on raw materials.

Norwegian industry has slight chances of becoming competitive within "traditional" industrial products. In addition to the raw-materials-based, it is therefore products in high technology which have some chance for the export market, the STK chief says.

"And with the right products we can compete with anyone in any market; it is necessary only that this industry be given the necessary prerequisites for developing itself. Our people must have better education, we must gamble more on research and development and the State must to a greater extent follow up with development contracts. State agencies must also take part to a considerable extent in marketing of exports. In these areas we are below rather than above average. Electronics and telecommunications are good examples. We must conduct a more deliberate policy to perfect ourselves within these and other high-technology fields than what we have done up to now," Fredrik Thoresen says.

8985
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GOVERNMENT AGENCY TO AID IN NATIONWIDE CABLE NETWORK

Oslo AFTENPOSTEN in Norwegian 21 Dec 83 p 5

[Article by Anne-Lise Hammer: "Telecommunications Agency Included in Development of Cable Network in Norway, but Still Room for Competition"]

[Text] It is a political goal to have the entire country "cabled." Hitherto the development has to a great extent been entrusted to private firms, while the Telecommunications Agency has provided the technical regulations. Now the Telecommunications Agency will also be included as a developer. According to the proposed regulations it is planned that possible developers of the cable network are to compete. "There is a need for planning, strategy and economizing on resources which necessitates regulations," the communications minister's personal secretary, Per Arne Watle, emphasized at a press conference yesterday.

Here a rough draft was presented, of the regulations for the establishment, development and operation of cable television. The regulations are now to have a hearing and the hearing authorities have six weeks before they must give an answer to the Ministry of Transport and Communications. The regulations have been given provisional status so that the temporary guidelines and rules will not tie up the Storting when it is to discuss the report on telecommunications services, the so-called telematics report.

By a telematics network is meant a network which can transfer information in the form of speech, text, data and living images in 2-way communication between subscribers. The Ministry of Transport and Communications believes the challenge now lies in implementing as soon as possible a strategy for further development of the cable TV networks which will make it possible to coordinate these into a future countrywide telematics network.

"Otherwise we risk the fact that considerable resources will be contributed to development of cable TV without any form of coordination. There then can be a risk that expensive work, for example, putting cables in the ground, later will have to be redone. The Ministry of Transport and Communications has therefore developed proposals for interim guidelines and rules which will seek to attend to various social considerations in this connection," Watle stressed.

The road to a completely developed countrywide telematics network is a long one. It is a question of a period of 10 to 20 years. Which services will then be of interest is not known with certainty, but it pays to be foresighted. Business representatives on the Telecommunications Committee who proposed the development of a telematics network are impatient and have stated that the circumstances must be put in order as soon as possible. "Good and reasonable telecommunications services will make a significant contribution to product development and the competitiveness of Norwegian industry, and to efficient management," it reads, among other things, in the report.

In the provisional regulations it is planned that the Telecommunications Agency is to have responsibility for development of network exchanges, the so-called long-distance network, and the local network, primarily--the same as turnpikes and state highways, in road talk--while private firms and the Telecommunications Agency will get to compete for the development of side roads, or the subscriber's part, as it reads in the regulations.

"There will be more than enough to do for private firms, because here we are faced with very extensive development," Watle answered to a question and emphasized as a chief concern that the service be as inexpensive as possible for the customer. "Private installers, too, must be able to use the Telecommunications Agency's previously established underground facilities and poles," Watle emphasized.

8985
CSO: 5500/2576

AGENCY TO CONSTRUCT FIBER OPTIC NET IN PROVINCE

Stockholm DAGENS NYHETER in Swedish 4 Jan 84 p 10

[Article by Gote Andersson: "Large Fiber-Optic Cable Network Planned in The Norrbotten Area"]

[Text] The National Telecommunications Administration plans to construct a 1,200-kilometer-long net of fiber optic cable in Norrbotten. The net is to be completed by 1998 at a total cost of 120 million kronor. The first stage is to be installed in 1985 from Lulea to Alvsbyn.

Eric Kostenius, project engineer in the administration's Norrbotten area, explains: "The capacity of the present telecommunications net is not one one-hundredth of what the fiber optic net will provide."

The National Telecommunications Administration will use a fiber optic cable consisting of 8 fiber optic lines: 4 lines will be dedicated to telephone transmissions, 2 lines to data transmissions, and 2 to television transmissions. In the 2 fiber optic lines for television, it will be possible in the future to transmit at least 100 TV channels simultaneously.

Kostenius sees the resultant strong increase in data service as the major benefit.

"There is pressure on the data transmission facilities today, particularly in Lulea and Kiruna. The fiber optic net will provide unlimited possibilities for enlarging data service," say Kostenius.

Fiber Optic Net

The areas of dense population in the province will be connected by the net. Eighty of the 480 telephone stations in the service area will be linked. This includes 50,000 of the division's 125,000 subscribers.

According to Kostenius, the net will also offer increased possibilities for expanding cable TV networks into small towns. Kostenius also sees another major benefit for small towns.

"When the net has been constructed, employment opportunities will be easier to create in small towns. Rather than move, people will be able to remain in the villages and work at home," he explains.

Kostenius singled out an operation in Gallivare where editing work is received, processed and sent back to clients by cable.

"The present telecommunications network has such small capacity that the amount of data that the operation in Gallivare can receive is limited. The fiber optic net will enable them to receive more assignments," says Kostenius.

One Million Per 10 Kilometers

The costs of installing the net will amount to one million kronor for each 10 kilometers of cable, of which 70 percent goes for materials and 30 percent for labor costs. Twenty people will be employed during the 12-year construction project.

The fiber optic net will partially replace a now obsolete radio network.

The new potential offered by fiber optic nets became apparent when costs for constructing a new radio network were calculated and compared with those of fiber optic cable.

"The costs of radio communication and fiber optic cable are comparable in the present situation," says Kostenius, "but fiber optic cable provides in addition much greater capacity."

For the National Telecommunications Administration, the investment in Norrbotten will result in an earlier introduction than had been thought previously. The Norrbotten service division is the first to extend fiber optic cable so far out to subscribers.

Så har skall det fiberoptiska nätet byggas ut inom Luleå telområde åren 1985 till 2000.

© GUJE ENGSTRÖM

The illustration above shows how the fiber optic telecommunications net is to be extended within the Lulea service area from 1985 to 2000.

Illustration by Guje Engstrom

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